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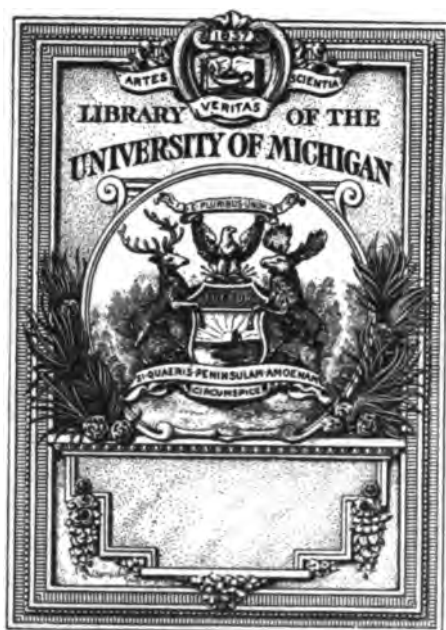
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**THE BRITISH
GYNÆCOLOGICAL JOURNAL.**

VOL. IX.



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VOL. IX.

EDITED BY

Bedford FENWICK, M.D.

AND

A. D. Leith NAPIER, M.D.



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63
64
65
66
67
68
69
70
71
72
73
74
75
76
77
78
79
80
81
82
83
84
85
86
87
88
89
90
91
92
93
94
95
96
97
98
99
100

CONTENTS

OF

VOLUME IX.

	PAGE
<i>February 9, 1893.</i> —Specimens shown by Dr. Hodgson	1
Epithelioma of the cervix uteri, removed by supra-vaginal amputation, shown by Dr. Heywood Smith.	3
Enlarged ovaries and paroöphoritic cysts, shown by Dr. Macnaughton Jones	4
Presidential address, by Mr. Bowreman Jessett	4
<i>March 9, 1893.</i> —Specimens of uterine myomata, shown by Dr. G. Granville Bantock	23
Hæmorrhage from the uterus, by Dr. T. Savage	30
<i>April 13, 1893.</i> —Sarcoma of the ovary, shown by Dr. R. T. Smith	46
Intra-peritoneal myomotomy, by Dr. W. J. Sinclair	49
<i>April 27, 1893.</i> —Adjourned discussion on intra-peritoneal myomotomy, by Dr. W. J. Sinclair	72
Reviews	91
Summary of Gynæcology including Obstetrics	106
Notes and News	125
<i>May 11, 1893.</i> —Specimens of sarcoma of the uterus, shown by the president, Mr. Bowreman Jessett	129
Vesical calculi, shown by Mr. Reeves.	130
Uterine reflexes, distant lesions, and remote symptoms due to uterine irritation, by Dr. Macnaughton Jones.	133
<i>May 25, 1893.</i> —Adjourned discussion on Dr. Macnaughton Jones' paper	151

	PAGE
<i>June 8, 1893.</i> —Tubo-ovarian gestation, retro-uterine hæmatocele, exhibited by Mr. Spanton	168
The operative treatment of vaginal, uterine and ovarian displacements, by Dr. A. D. Leith Napier	171
Original communication, by Dr. R. R. Rentoul	196
Obituary	212
Reviews	217
Summary of Gynæcology including Obstetrics	237
<i>July 13, 1893.</i> —Specimens shown by Dr. Heywood Smith	257
Extra-uterine gestation, shown by Dr. Travers	258
Ruptured tubal gestation, shown by Dr. Schacht	260
Uterus removed by abdominal hysterectomy, shown by the president, Mr. Bowreman Jessett	263
<i>October 12, 1893.</i> —Three specimens of uteri removed by caustics, shown by the president, Mr. Bowreman Jessett	266
The nerve theory of menstruation, by Mr. Christopher Martin	271
Report of pathological committee on Mr. Spanton's specimen	283
Obituary	285
Reviews	287
Summary of Gynæcology including Obstetrics	321
<i>November 9, 1893.</i> —Suppurating Fallopian tubes, uterus removed by vaginal hysterectomy for prolapse, shown by Dr. Thomas Savage	381
Vaginal hysterectomy on a patient 66 years of age, by Dr. James Macpherson-Lawrie	385
Twelve cases of vaginal hysterectomy for carcinoma uteri with one death, by Mr. Bowreman Jessett	389
<i>December 14, 1893.</i> —Letter of sympathy to Lady Clark	414
Body and neck of cancerous uterus removed by chloride of zinc, shown by Dr. F. A. Purcell	415
Cyst of Fallopian tube, hæmato-salpinx, double hæmato-salpinx with myoma of uterus, shown by Mr. John W. Taylor	418
Malignant disease of the uterus, two specimens, shown by Mr. Bowreman Jessett	420
Hysterectomy by the clamp operation, a special method for its performance, by Mr. J. W. Taylor	421

Contents of the Ninth Volume.

vii.

	PAGE
<i>January</i> 11, 1894.—Special general meeting	431
Annual meeting, treasurer's report	431
Notes of a case of tubal gestation, operated on twice successfully in eighteen months, by Dr. R. Crewdson Benington .	435
Fibroid uterus removed by vaginal hysterectomy, shown by Dr. Heywood Smith	440
Valedictory address, by the president, Mr. F. Bowreman Jessett	442
 Original communication	 451
Clinical cases	455
Reviews	459
Summary of Gynæcology including Obstetrics	485
Medical news	516

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- F.F. ADAMS, JOSEPH, M.B., C.M.Edin., 93, Bewsey Street, Warrington, Lancashire.
- 1886 AICKIN, WILLIAM, M.D., 6, Murray's Terrace, Belfast.
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- 1886 AIKMAN, ALFRED, M.B., The Elms, Beverley Road, Hull.
- F.F. ALEXANDER, WILLIAM, M.D., F.R.C.S.Eng., 100, Bedford Street, Liverpool. C. 1887-9. V.P. 1890.
- F.F. ALLAN, JAMES, M.A., M.D., *Medical Superintendent Union Infirmary*, Leeds.
- 1886 ALLOWAY, T. JOHNSON, M.D., *Instructor in Gynecology McGill University, Montreal*, 934, Dorchester Street, W. Montreal, Canada.
- F.F. AMBROSE, ROBERT, B.A.Q.U.I., L.R.C.P. & S.Edin., 1, Mount Place, Whitechapel Road, E.
- 1889 APOSTOLI, Dr., 5, Rue Molière, Paris. V.P. 1893.
- 1885 ARMSTRONG, WILLIAM, M.R.C.S.Eng., Thorncliffe, Hartington Road, Buxton.
- 1888 ARROL, CHARLES, M.D., C.M.Glas., L.R.C.S.Ed., 12, Edward Street, Bankstone, Sheerness.
- 1888 AUVARD, A., M.D., *Accoucheur des Hopitaux*, 58, Rue la Boétie, Paris. V.P. 1891.
- F.F. AYLING, ARTHUR HENRY WILLIAMS, L.S.A.Lond., 41, Devonshire Street, Portland Place, W.
- 1889 BAGOT, WILLIAM S., M.D.Dub., L.R.C.S.I., *Gynecologist to St. Luke's Hospital, Denver, Colo., Ex-Senior Assistant Physician Rotunda Hospital, Dublin*, 308 & 309, California Buildings, Denver, Colo., U.S.A.

Elected.

- L. 1888** BAKER, CLARENCE ATWOOD, M.D., 312, Congress Street, Portland, Maine, U.S.A.
- L. 1885** BAKER, WILLIAM HENRY, M.D., *Professor of Gynæcology, Harvard University, Surgeon to the Free Hospital for Women, Boston*, 22, Mount Vernon Street, Boston, Mass., U.S.A.
- 1889** BALDY, J. M., M.D., 1722, Chestnut Street, Philadelphia, U.S.A.
- 1887** BALLERAY, G. H., M.D., 115, Broadway, Paterson, N.J.
- L. F.F.** BANTOCK, G. GRANVILLE, M.D., F.R.C.S.Ed. *Surgeon to the Samaritan Free Hospital*, 12, Granville Place, Portman Square, w.
V.P. 1884-6. Pres. 1887-8. Treas. 1888-90. C. 1891. Libr. 1894.
- 1893** BARBER, R. HENRY, L.R.C.P., L.R.C.S., &c., *Professor of Pediatrics and Hygiene in the University of Williamette*, 505, Williams Avenue, Albina, Portland, Oregon, U.S.A.
- L. F.F.** BARBOUR, A. H. FREELAND, M.A., B.Sc., M.D., *Assistant Obstetric Physician Royal Infirmary, Edinburgh, President Edinburgh Obstetrical Society*, 14, Charlotte Square, Edinburgh.
C. 1884-8. V.P. 1893.
- F.F.** BARBOUR, JAMES, M.D., 118, Newington Causeway, s.e.
- F.F.** BARNES, ROBERT, M.D., F.R.C.P., *Consulting Obstetric Physician to St. George's Hospital, Consulting Physician to the Chelsea Hospital for Women and the Royal Maternity Charity*, Lingwood, Lyss, Hants.
Hon. Pres. 1884.
- F.F.** BARNES, R. S. FAN COURT, M.D., M.R.C.P., F.R.S.E., *Physician to the Chelsea Hospital for Women, the British Lying-in Hospital, and the Royal Maternity Charity*, 7, Queen Anne Street, w.
Late Editor. Hon. Sec. 1884-86. V.P. 1887-9 & 1892.
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- 1893** BARRETT, F. A., M.B., B.Ch.Melb., South Melbourne, Melbourne.
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V.P. 1893.
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C. 1885-8. V.P. 1891-3.

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C. 1892.
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- L. F.F. BLAKE, EDWARD, M.D., Berkeley Mansions, 64, Seymour Street, Hyde Park, w.
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- F.F. BURTON, J. E., M.A. (Hon.) Beloit, M.R.C.S., *Surgeon to the Liverpool Hospital for Women*, 64, Rodney Street, Liverpool.
C. 1884-8. Hon. Loc. Sec.
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- 1894 CAMPBELL, JOHN, M.A., M.D., M.Ch., M.A.O.R.U.I., F.R.C.S.Eng., *Senior Physician Samaritan Hospital for Women, Belfast*, 21, Great Victoria Street, Belfast.
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- L. 1887 CLARKE, THOMAS KILNER, F.R.C.S.Eng., M.D., M.A., M.B.Cantab., *Surgeon Huddersfield Infirmary*, 66, John William Street, Huddersfield.
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- F.F. COLEMAN, CHARLES ALFRED, M.D.Edin., Hill View, Streatham Common, s.w.
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- 1890 COLLINS, E. TENISON, M.R.C.S., L.S.A., 12, Windsor Place, Cardiff.
- 1885 CONDON, JAMES HUNT, M.D.St. Andrews, M.R.C.S., L.S.A., L.M.Dublin, *Brigade Surgeon Indian Army Medical Department, Cawnpore, India.*
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- L. F.F. CORDES, AUGUSTE E., M.D.Paris, M.R.C.P.Lond., *Private-Doctent of Midwifery, ex chirurgien adjoint à la Maternité, 12, Rue Bellot, Geneva.*
- F.F. CRAIGIE, JOHN HAMILTON, F.R.C.S.Edin., *Surgeon-Dentist to the Chelsea Hospital for Women, 13, Saville Row, w.*
- F.F. CRANNY, JOHN JOSEPH, M.D.Dub., A.B., F.R.C.S.I., *Surgeon to the Jervis Street Hospital, late Examiner in Midwifery Royal College of Surgeons, Ireland, 17, Merrion Square North, Dublin.*
- F.F. CREASE, J. ROBERTSON, F.R.C.S.Edin., 2, Ogle Terrace, South Shields.
- 1886 CRESSWELL, PEARSON ROBERT, F.R.C.S.Ed., *Surgeon Merthyr General Hospital, &c., Dowlais, Merthyr Tydfil.*
- 1888 CRICHTON, GEORGE, A.M.St. And., M.D.Edin., L.R.C.S.Edin., Tudor House, Montpellier Row, Twickenham, Middlesex.
- F.F. CRIPPS, C. COUPER, M.D., M.R.C.S., 187, Camberwell Grove, Denmark Hill, s.e.
- 1888 CRISP, ERNEST HENRY, B.A.Camb., L.R.C.P., M.R.C.S., The Lawns, Balham Hill, Clapham Common, s.w.
- 1891 CROMIE, JOHN, L.R.C.P. & S.Edin., 49, Stanley Street, Blyth, Northumberland.
- F.F. CROOM, JOHN HALLIDAY, M.D., F.R.C.P.E., F.R.C.S.E., F.R.S.E., *Physician to, and Clinical Lecturer on Diseases of Women Royal Infirmary, and Physician to the Royal Maternity Hospital, Edinburgh, 25, Charlotte Square, Edinburgh.* C. 1884-6. V.P. 1887-9.
- L. 1887 CROUZAT, E., M.D., *Professeur de Clinique d'Accouchements à la Faculté de Médecine de Toulouse, 9, Rue de Sénéchal, Paris.*
- 1891 CURRY, MATTHEW ALLISON, M.D., Halifax, Nova Scotia.
- 1886 CUSHING, CLINTON, M.D., 636, Sutter Street, San Francisco, U.S.A.
- 1888 CUTHBERT, WILLIAM WOOD, M.R.C.S.Eng., L.S.A.Lond., Mendlesham, Stonham, Suffolk.

Elected.

- F.F. DAVIES, ELLIS THOMAS, M.D., *Senior Assistant Surgeon Hospital for Women*, 97, Shaw Street, Liverpool.
- 1892 DAVIES, W. J. F., M.D., Johannesburg, South Africa.
- 1892 DAVIS, W. E. B., M.D., 1806, Third Avenue, Birmingham, Alabama, U.S.A.
- 1885 DEMPSEY, ALEXANDER, M.D.Q.U.I., L.R.C.S.I., *Physician Mater Infirmorum Hospital*, 26, Clifton Street, Belfast.
- F.F. DESSAIGNES, A. RIBEMONT, M.D., *Professeur agrégé à la Faculté de Médecine de Paris, Accoucheur de l'Hôpital Beaujon*, 10, Boulevard Malesherbes, Paris.
- L. 1887 DEWES, FREDERICK JOSEPH, L.R.C.P.Lond., M.R.C.S.E., *Surgeon Captain Madras Army*, care of Messrs. Binney & Co., Madras, India.
- 1888 DICKEY, SAMUEL, M.D., *Physician to Belfast Lying-in Hospital*, 9, Clifton Street, Belfast.
- F.F. DICKINSON, T. VINCENT, M.D., *Physician to the Out-Patients, Chelsea Hospital for Women*, 33, Sloane Street, s.w.
Hon. Sec. 1891. V.P. 1893.
- 1886 DICKSON, CHARLES COCHRANE, L.R.C.P. & S.Ed., Bowmont House, Willesden Lane, N.W.
- L. F.F. DINGLE, WILLIAM ALFRED, L.R.C.P.Lond., M.R.C.S.Eng., L.S.A., *Surgeon Royal Maternity Charity*, 46, Finsbury Square, E.C.
C. 1889. V.P. 1892-3.
- 1887 DINGLEY, WILLIAM, M.R.C.S., L.S.A., 277, Camden Road, N.
- L. 1888 DIRNER, GUSTAV A., M.D., 4, Hatvani U., Buda-Pesth, Hungary.
- F.F. DIXON, JOHN, M.B., C.M.Edin., Portland House, 39, Gloucester Road, Finsbury Park, N.
- F.F. DIXON, WILLIAM EDWARD, L.R.C.P.Ed., F.R.C.S.Ed., M.R.C.S., "Bridge Cot," Oulton Broad, Lowestoft.
- 1891 DODD, T. A., M.R.C.S., L.R.C.P.Ed., *Visiting Surgeon Newcastle-on-Tyne Workhouse Hospital*, 4, Eldon Square, Newcastle-on-Tyne.
- F.F. DOLAN, THOMAS M., M.D., F.R.C.S.Edin., Horton House, Halifax, Yorkshire.
C. 1886-8 & 1892. V-P. 1888.
- L. 1889 DOUGLAS, RICHARD, M.D., Nashville, Tennessee, U.S.A.
- F.F. DRAKE-BROCKMAN, EDWARD FORSTER, F.R.C.S.Eng., L.R.C.P.Lond., Fairholme, 18, Dennington Park Road, West Hampstead.
- F.F. DRAPER, JAMES WILLIAM, L.R.C.P.Lond., M.R.C.S.Eng., L.S.A., Almondbury, near Huddersfield.
- 1891 DRUMMOND, JAMES, M.D., 5, Albion Terrace, South Shields.
- L. 1885 DUDLEY, EMILIUS CLARKE, A.B., M.D., *Professor of Gynaecology Chicago Medical College*, 1619, Indiana Avenue, Chicago, U.S.A.
- 1889 DUKE, EDGAR, M.R.C.S.Eng., & L.S.A., 59, Pevensey Road, St. Leonards-on-Sea.
- F.F. DUNDAS, MORDAUNT GEORGE, M.R.C.S., L.S.A., Litcham, Norfolk.
- 1891 EASTES, THOMAS, M.D., F.R.C.S., 18, Manor Road, Folkestone.
- 1890 ECCLES, F. R., M.D., *Professor of Gynaecology at the Western University*, Ellwood Place, London, Ontario, Canada.
- 1892 ECHLIN, EDMUND B., B.A., M.D., C.M., Hamilton, Ontario, Canada.
- 1893 EDEN, THOMAS WATTS, M.D., C.M.Edin., M.R.C.P.Lond., *Pathologist Chelsea Hospital for Women*, 21, Bentinck Street, W.

-
- Elected.
- 1894 EDGE, FREDERICK, M.D., B.S., B.Sc.Lond., M.R.C.P.Lond.,
F.R.C.S.Eng., *Surgeon to the Wolverhampton Hospital for Women*,
27, Darlington Street, Wolverhampton.
- F.F. ELDER, GEORGE, M.D., *Surgeon Samaritan Hospital for Women, Not-*
tingham, 17, Regent Street, Nottingham. C. 1890.
- 1892 ENGELMANN, FREDK., M.D., Kreuznach, Germany.
- L. 1885 ENGLEMAN, GEORGE J., M.D., 3003, Locust Street, St. Louis, U.S.A.
- L. 1892 ENGSTRÖM, OTTO, M.D., Helsingsfors, Finland.
- F.F. ENSOR, EDWIN THOMAS, M.D.Univ. N.Y., L.R.C.P.I., &c., 23,
Chesterton Road, North Kensington, w.
- 1885 EVANS, EBENEZER RICHARD, L.R.C.P., L.R.C.S.Edin., Llandyssil,
Cardiganshire, South Wales.
- 1891 FARQUHARSON, JAMES DUNCAN, M.B., C.M.Glas., 242, Westgate
Road, Newcastle-on-Tyne.
- 1892 FAUSSETT, ANDREW, B.A., M.B., B.Ch.Dub., *Anæsthetist Chelsea*
Hospital for Women, 66 Belgrave Road, s.w.
- 1885 FEARNLEY, WILLIAM, L.R.C.P.Lond., M.R.C.S.Eng., 81, Elgin
Avenue, Maida Vale, w.
- 1891 FEHLING, PROFESSOR, M.D., Bâle, Suisse.
- L. 1886 FENGER, CHRISTIAN, M.D., Chicago, Illinois, U.S.A.
- F.F. FENTON, W. HUGH. M.A.Oxon. M.D., *Physician Chelsea Hospital for*
Women, 27, George Street, Hanover Square, w.
Hon. Sec. 1890. V.P. 1892.
- 1893 FERGUSON, GEO. GUNNIS, M.B., C.M.Glas., 62, Holmdale Road,
West Hampstead.
- 1891 FIELDEN, SAMUEL, M.D., Enfield Lodge, Shildon, Co. Durham.
- 1893 FINDLAY, WILLIAM, A.M., M.B., C.M.Aber., 2, Queen's Road, Aber-
deen, N.B.
- L. F.F. FITZGERALD, CHARLES EGERTON, M.D., West Terrace, Folkestone.
C. 1888-9.
- 1892 FLYNN, E. J. MOFFAT, F.R.C.S.Edin., 4, Gower Place, w.c.
- F.F. FORDHAM, JOHN W., M.R.C.S.Eng., L.R.C.P.Edin., 12, Mornington
Road, Bow.
- 1891 FRANKISH, W. J., M.R.C.S., L.R.C.P.Lond., 102, Sloane Street, s.w.
- 1885 FRASER, GRAEME BISDEE, M.R.C.S., L.S.A., Belvidere, Weston-
super-Mare.
- 1885 FULLER, LEEDHAM, M.R.C.S.Eng., L.S.A.Lond., Streatham Hill, s.w.
- 1889 GALLOWAY, A. RUDOLPH, M.A., M.B., C.M.Aberd., 207, Union
Street, Aberdeen.
- F.F. GARDINER, BRUCE HUBERT JOHN, L.R.C.P.Edin., M.R.C.S., Glou-
cester House, Barry Road, East Dulwich, s.e.
- F.F. GARDNER, WILLIAM, M.D., *Professor of Gynecology in McGill's Uni-*
versity, 109, Union Avenue, Montreal, Canada. V.P. 1887.
- 1891 GARDNER, WILLIAM, M.D., 5, Collins Street, Melbourne, Australia.
- 1891 GIBB, C. J., M.D., *Consulting Surgeon Newcastle-on-Tyne Infirmary*,
Westgate Street, Newcastle-on-Tyne.

Elected.

- 1893 GILES, ARTHUR E., M.D., B.Sc.Lond., M.R.C.P., *Physician to Out-Patients Chelsea Hospital for Women*, 57, Queen Anne Street, W.
- L. 1885 GILES, PETER, M.R.C.S., L.R.C.P., The Quinta, Brobury, Hereford.
- F.F. GIMSON, THOMAS STEVENS, M.R.C.S., 32, Fitzroy Square, w.
- 1892 GLEDDEN, ALFRED MAITLAND, M.D.BruX., F.R.C.S.Edin., care of L. Bruck, 13, Castlereagh Street, Sydney.
- 1886 GLOSTER, JAMES, B.A., M.B., M.Ch.Dub., 15, Upper Phillimore Place, w.
- 1891 GODSON, CLEMENT, M.D., M.R.C.P., *Consulting Physician to the City of London Lying-in Hospital, late Assistant Physician Acch. St. Bartholomew's Hospital*, 9, Grosvenor Street, w. C. 1892.
- 1891 GOGGANS, J. A., M.D.N.Y., Alexander City, Alabama, U.S.A.
- F.F. GOLDSMITH, GEORGE POCOCK, M.D., 3, Harpur Place, Bedford. C. 1891.
- L. 1886 *GORDON, S. C., M.D.
- 1891 GOWANS, WILLIAM, M.D., F.R.C.S.Edin., Westoe House, Westoe, South Shields.
- 1890 GRAY, CLEMENT FREDERICK, M.R.C.S., L.S.A., Newmarket, Cambs.
- 1891 GREEN, W. O., M.D., 709, 2nd Street near Chestnut, Louisville, Kentucky, U.S.A.
- F.F. GRIFFITH, G. DE GORREQUER, L.R.C.P., M.R.C.S., *late Senior Physician to Hospital for Women and Children, Pimlico*, 34, St. George's Square, s.w., and New Indian Club, Whitehall Gardens, s.w.
- F.F. GRIGG, W. CHAPMAN, M.D., M.R.C.P., *Physician to Queen Charlotte's Hospital, late Assistant Obstetric Physician to the Westminster Hospital*, 27, Curzon Street, Mayfair, w. C. 1884-6 & 1892. Hon. Sec. 1886-7. V.P. 1888. Pres. 1891.
- L. 1885 GRIMSDALE, THOMAS BABINGTON, B.A., M.B.Cantab., M.R.C.S., *Assistant Surgeon Hospital for Women, Liverpool*, 50, Rodney Street, Liverpool. C. 1894.
- 1893 *GUTHRIE, ROBERT LYALL, M.A., M.B., C.M.Edin.
- 1885 HACKNEY, JOHN, M.D., M.R.C.S., L.S.A., Oaklands, Hythe, Kent.
- 1893 *HAHN, ADOLPH VON, M.D.
- F.F. HALL, ALFRED R., M.D., L.R.C.P., M.R.C.S., Sunnybank, Shoot-up Hill, Brondesbury, n.w.
- L. 1885 HALL, RUFUS B., M.D., 37, Crown Street, Walnut Hills, Cincinnati, U.S.A.
- 1893 HALL, WILLIAM WINSLOW, M.D., 195, Belsize Road, Kilburn, n.w.
- 1888 HAMILTON, J. BEAMISH, L.R.C.P., Tudor House, Tenby, Pembrokeshire.
- L. 1886 HANKS, HORACE TRACY, M.D., 766, Madison Avenue, New York, U.S.A.
- F.F. HARPER, JAMES, M.D.Lond., 25, Rosary Gardens, South Kensington, s.w.
- F.F. HARRIES, THOMAS DAVIES, M.R.C.P.Lond., F.R.C.S.Eng., *Surgeon Aberystwith Infirmary and Cardiganshire General Hospital*, Grosvenor House, Aberystwith.
- F.F. HASLAM, WM. DOIGE, M.D.BruX., M.R.C.S.Eng., L.S.A., Maywood, Christchurch Road, Bournemouth.
- F.F. HAULTAIN, FRANCIS NICOL, M.D., F.R.C.P.Ed., *Physician for Diseases of Women Royal Dispensary, Lecturer on Midwifery and Diseases of Women Edinburgh School of Medicine*, 17, Rutland Street, Edinburgh.

Elected.

- 1889 HAWKES, A. E., M.D., L.R.C.P.Edin., L.R.C.S.Edin., and L.M., 22, Abercromby Square, Liverpool.
- 1891 HAWKINS-AMBLER, G. A., F.R.C.S.Edin., 162, Upper Parliament Street, Liverpool.
- L. 1886 HEADLEY, W. BALLS, M.A., M.D., F.R.C.P., 4, Collins Street, Melbourne, Australia.
- 1887 HEALD, BENJAMIN GRAY, L.R.C.P.Ed., L.F.P.S.G., Red House, East Street, Leeds.
- F.F. HEBERT, PAUL ZOTIQUE, M.D., C.M.McGill, L.R.C.P.Lond., 54, Berners Street, Oxford Street, w.
- L. 1885 HEIBERG, WILHELM, M.D., *Surgeon to the County Hospital of Copenhagen*, Frederiksberg, Copenhagen.
- 1885 HENSMAN, FRANK HENRY, M.R.C.S.Eng., *Surgeon Lt.-Col., Army Medical Staff*, Windsor Barracks.
- L. 1887 HETHERINGTON, GEO. ALBERT, M.D., St. John, N.B., Canada.
- F.F. HICKS, GEORGE BORLASE, M.R.C.S., L.M.Eng., L.R.C.S.Edin., 149, Amherst Road, Hackney, E.
- 1891 HILL, J. STONELY, M.B. and C.M.Edin., 33, Great Charlotte Street, Blackfriars, S.E.
- F.F. HILLS, AUGUSTUS PHILLIPS, M.R.C.S.Eng., Carlton House, Prince of Wales Road, Battersea Park, S.W. C. 1888-9.
- F.F. HINE, ALFRED LEONARD, L.R.C.P.Lond., M.R.C.S., L.S.A., Eppingdale, Leytonstone Road, E. C. 1891.
- 1887 HITCHINS, THOMAS J., M.R.C.S., L.R.C.P., &c., Broadfield, Crawley, Sussex.
- L. 1887 HOAG, JUNIUS C., M.D., 58, 43rd Street, Chicago.
- F.F. HODGSON, ROBERT HUGH, L.R.C.P.Edin., M.R.C.S.Eng., 204, Rye Lane, Peckham, S.E. C. 1894.
- F.F. HOLLAND, EDMUND, M.D., M.R.C.P., F.R.C.S., *Physician to the Hospital for Women*, 1, Titchfield Terrace, North Gate, Regent's Park, N.W. C. 1893.
- L. 1890 HOLMES, Dr. H. R., Portland, Oregon, U.S.A.
- L. 1885 HOOPER, JOHN WILLIAM DUNBAR, L.R.C.P.Edin., L.R.C.S.Edin., *Surgeon to the Women's Hospital, Melbourne*, 54, Collins Street East, Melbourne.
- L. 1886 HOPKINS, JAMES B., M.D., Parkerville, Kansas, U.S.A.
- F.F. HOWELL, HORACE SYDNEY, M.D., F.R.C.S., East Grove House, 18, Boundary Road, South Hampstead, N.W.
- 1887 HUMISTON, WILLIAM H., M.D., Cleveland, Ohio, U.S.A.
- 1887 HUTCHISON, GEORGE WRIGHT, M.D.Aber., M.R.C.P.Edin., Chipping Norton, Oxon.
- F.F. ISDELL, FITZGERALD, M.A., M.D.Dub., 189, Shaftesbury Avenue, W.C.
- 1886 JACKSON, JAMES, M.R.C.S., L.S.A., 15, Huntington Street, Barnsbury, N.
- F.F. JACKSON, THOMAS VINCENT, F.R.C.S.Edin., *Senior Surgeon to the Wolverhampton and Staffordshire General Hospital*, Whetstone House, Wolverhampton. C. 1884-7.
- 1886 JAGGARD, WILLIAM WRIGHT, M.D., 2910, Indiana Avenue, Chicago, Ill., U.S.A.

Elected.

- F.F.** JAMES, W. CULVER, M.D., 11, Marloes Road, Kensington, s.w.
C. 1884-7.
- 1885** JAMIESON, ROBERT ALEXANDER, M.D.Q.U.I., Shanghai, China.
- F.F.** JAY, HENRY MASON, M.D.Aberd., F.R.C.S.Ed., Chippenham, Wilts.
- 1891** JAYNES, V. A., M.R.C.S.Eng., L.S.A., 157, Jamaica Road, Bermondsey.
- 1887** JESSETT, FREDERICK BOWREMAN, F.R.C.S.Eng., *Surgeon to the Cancer Hospital, Brompton*, 1, Buckingham Palace Mansions, Grosvenor Gardens, s.w.
C. 1891 & 1894. Pres. 1893.
- L. 1885** JEWETT, CHARLES, M.D., 330, Clinton Avenue, Brooklyn, U.S.A.
- F.F.** JOHNSON, JAMES BOVELL, M.D., M.Ch.Montreal, L.S.A.Lond., Mickleton, Campden, Gloucestershire.
- 1886** JOHNSTON, JOHN, M.R.C.S.Eng., 2, Rocky Hill Terrace, Maidstone.
- 1885** JOHNSTON, WILLIAM BRECH, M.D., M.Ch.Q.U.I., 157, Jamaica Road, s.e.
- L. 1886** JOHNSTONE, ARTHUR W., M.D., Madisonville Road, Cincinnati, Ohio.
- 1891** JOHNSTONE, GEORGE W., L.R.C.P., care of Messrs. Guthrie & Co., Singapore.
- 1887** JONES, C. N. DIXON, M.D., 776, Madison Avenue, New York.
- F.F.** JONES, H. MACNAUGHTON, M.D., M.Ch.Q.U.I., M.A.O., F.R.C.S.I. and Edin., *late Examiner in Midwifery Royal University, Ireland, and Professor of Midwifery, Queen's College, Cork*, 141, Harley Street, w.
C. 1890.
- F.F.** JONES, LEWIS, M.D., M.R.C.S., Oakmead, Balham, s.w. C. 1894.
- 1893** JORDAN, JOHN FURNEAUX, M.B.R.U.I., F.R.C.S.Eng., *Surgeon Women's Hospital, Birmingham*, 114, Edmund Street, Birmingham.
- 1885** JOUBERT, CHARLES HENRY, M.B.Lond., F.R.C.S.Eng., *Surgeon Lieut. Colonel I.M.S., Professor of Midwifery and Obstetric Physician, Medical College, Calcutta*, 6, Harrington Street, Calcutta.
- 1893** KEATING, JOHN M., M.D., *Fellow of the American Gynæcological Society, President of the American Pediatric Society*, Colorado Springs, Colorado, U.S.A.
- 1886** KELLETT, ROBERT GUY, L.K.Q.C.P.I., The Pritchards, Halstead, Essex.
- L. 1889** KELLOGG, J. H., M.D., Battle Creek, Michigan, U.S.A.
- 1891** KEMPSTER, WM. H., M.B.Durh., 2, Queen Anne Terrace, Albert Road, Battersea Park, s.w.
- F.F.** KENNEDY, HUGH B., L.R.C.S.I., *Assistant Surgeon to the Mater Misericordia Hospital*, 8, Great Denmark Street, Dublin.
- F.F.** KENNEDY, JOHN BLYDESTYN, M.R.C.S.Eng., L.S.A., Stratford Hall, Romford Road, Stratford, E.
- F.F.** KIALLMARK, HENRY WALTER, M.R.C.S., 5, Pembridge Gardens, Bayswater, w.
- 1891** KIERSTED, P. T., M.D., Woodstock, Carleton County, New Brunswick, Canada.
- L. 1886** KING, ALBERT F. A., M.D., 1315, Mass. Avenue, N.W., Washington, D.C., U.S.A.
- 1893** KIRKLEY, C. A., M.D., Toledo, Ohio, U.S.A.
- F.F.** KNOTT, CHARLES, M.R.C.P.Edin., Liz Ville, Elm Grove, Southsea.

Elected.

- F.F. LAMPREY, RICHARD ORFORD, L.R.C.P. and L.R.C.S.Edin., 62, East Hill, Wandsworth, s.w.
- 1890 LANGLEY, AARON, L.R.C.P.Edin. and L.M., L.R.C.S.Edin., 149, Walworth Road, s.e.
- 1890 LANKFORD, DR. LIVIUS, Norfolk, Virginia, U.S.A.
- 1893 LATHBURY, A. E. A., L.R.C.P., M.R.C.S., Armoury Lodge, City Road.
- L. 1886 LAWRIE, JAS. MACPHERSON, M.D., *Physician to the Weymouth Sanatorium*, Greenhill, Weymouth. C. 1894.
- L. F.F. LEBLOND, ALBERT, M.D., *Médecin de Saint-Lazare*, 53, Rue d'Hauteville, Paris.
- 1893 LEHANE, DANIEL, M.D., M.Ch., R.U.I., 21, Pelham Crescent, s.w.
- 1889 LEIGH, W. W., L.R.C.P.Edin., M.R.C.S.Eng., L.S.A., Glyn Bargoed, Treharris, R.S.O., South Wales.
- L. F.F. LE PAGE, JOHN FISHER, M.D., L.R.C.P.Edin., 17, The Crescent, Salford, Manchester.
- F.F. LESLIE, WILLIAM MURRAY, M.D., C.M.Edin., F.R.C.S.Edin., 41, Glengall Road, Millwall, e.
- F.F. LEWIS, HENRY, M.D.Brux., M.R.C.S., West Terrace, Folkestone.
- F.F. LIGERTWOOD, THOMAS, M.D., F.R.C.S.Ed., Royal Hospital, Chelsea, s.w. C. 1892.
- F.F. LLEWELLYN, REES RALPH, L.R.C.P.Lond., M.R.C.S.Eng., L.S.A., 152, Whitechapel Road, e.
- 1891 LLOYD, H. J., L.R.C.P.Ed., L.F.P.S.Glas., Tyncoed, Barmouth, North Wales.
- F.F. LLOYD, SAMUEL, M.D., 4, High Street, Bloomsbury, w.c.
- 1893 LLOYDE, JOHN HY., L.R.C.P., L.R.C.S.Edin., 6, Harpur Place, Bedford.
- 1885 LONG, FREDERICK WILLIAM DEVEREUX, L.S.A., 31, Finsbury Square, e.c.
- F.F. LOW, RICHARD MARSDEN PILKINGTON, M.B., C.M.Edin., L.R.C.P. Edin., L.R.C.S.Edin., L.M., 70, Philbeach Gardens, s.w.
- L. 1885 LUSK, WILLIAM T., M.D., 47, East Thirty-fourth Street, New York, U.S.A. V.P. 1887.
- 1894 LUTAUD, AUGUSTE, M.D.Paris, 34, Boulevard Haussmann, Paris.
- F.F. LYCETT, JOHN ALLAN, M.D.St. And., M.R.C.P.Edin., *Surgeon Wolverhampton and District Hospital for Women*, Gatcombe, Wolverhampton. Hon. Loc. Sec. C. 1889-91.
- F.F. MACAN, ARTHUR VERNON, B.A., M.B.Dub., M.Ch., M.A.O., F.R.C.P.I., *King's Professor of Midwifery Trinity College; Obstetric Physician, Sir P. Dun's Hospital; Ex-Master of the Rotunda Hospital, Dublin*, 53, Merrion Square, Dublin. V.P. 1887. Pres. 1889. C. 1890.
- L. 1885 MACAN, JAMESON JOHN, M.A.Cantab., M.R.C.S., 62, George Street, Portman Square, w.
- F.F. MACCALLUM, DUNCAN C., M.D., 45, Union Avenue, Montreal, Canada.
- L. 1889 MACKAY, W. A., M.D.Edin., F.R.C.S.Edin., Huelva, Spain.

Elected.

- 1886 MACKENZIE, WILLIAM G., F.R.C.S.Ed., *Surgeon Belfast Hospital for Children*, 62, Richmond Terrace, Belfast.
- L. 1888 MACKINTOSH, G. D., L.R.C.P.I., L.M.Ed., The Craig, St. Anne's-on-the-Sea, Lancashire.
- L. 1888 MACPATTER, N. LINCOLN, M.D., 1362, California Street, Denver, Colo., U.S.A.
- 1886 MACPHERSON, CHARLES, M.D.Glas., Bonar Bridge, Sutherlandshire, N.B.
- 1888 MANTON, WALTER PORTER, M.D., 32, Adams Avenue, w., Detroit, Mich., U.S.A.
- 1887 MARLEY, HENRY FREDERICK, M.R.C.S.E., L.R.C.P., L.S.A., L.M., The Nook, Padstow, Cornwall.
- 1891 MARTIN, CHRISTOPHER, M.B.Edin., C.M., F.R.C.S.Eng., *Surgeon Birmingham and Midland Hospital for Women*, 22, Broad Street, Birmingham.
- 1891 MASTERS, JOHN ALFRED, M.D., M.R.C.P., 35, Bruton Street, w.
- F.F. MASSON, GEORGE BLAKE, L.R.C.P. and S.Ed., L.M., Dashwood House, Ramsgate.
- 1889 MAUNSELL, HENRY WIDENHAM, M.A., M.D.Trin. Coll., Dub., 37, Stanhope Gardens, South Kensington. C. 1893.
- 1886 MAURY, R. B., M.D., Memphis, Tennessee, U.S.A.
- 1892 MCMURTRY, L. S., M.D., 231, West Chestnut Street, Louisville, Kentucky, U.S.A.
- 1891 MEARNS, WILLIAM, M.A., M.D., *Physician, Children's Hospital, Gateshead-on-Tyne*, 22, Bewick Road, Gateshead-on-Tyne.
- 1891 MEEK, H., M.D., 331, Queen's Avenue, London, Ontario, Canada.
- 1887 MENDES DE LEON, M.A., M.D., Sarphatistraat 1h, Amsterdam. C. 1892.
- L. 1886 MERRIMAN, HENRY P., M.D., 2239, Michigan Avenue, Chicago, U.S.A.
- 1889 MERRITT, W. HAMILTON, Dr., St. Catherine's, Ontario, Canada.
- 1891 MICHIE, H., M.B.Aber., C.M., *Surgeon to the Samaritan Hospital*, Nottingham. C. 1894.
- F.F. MILLER, ANDREW, M.D., 5, Grosvenor Street, w.
- L. 1886 MILLER, DE LASKIE, M.D., *Professor of Obstetrics, Rush Medical College*, 446, Chestnut Street, Chicago, U.S.A.
- 1892 MOLSON, CAVENDISH, L.R.C.P., 13, Lingfield Road, Wimbledon.
- F.F. MOORE, STEPHEN HENRY, F.R.C.S.E., *Medical Superintendent of Chelsea Infirmary*, 97, Sydney Street, Chelsea, s.w. C. 1891.
- 1887 MORISON, ALBERT EDWARD, M.B., C.M.Ed., F.R.C.S.Edin., Hartlepool.
- 1891 MORISON, J. RUTHERFORD, M.B., F.R.C.S., *Assistant Surgeon Newcastle-on-Tyne Infirmary*, 14, Savile Row, Newcastle-on-Tyne. C. 1894.
- F.F. MORTON, THOMAS, M.D.Lond., M.R.C.S., L.S.A., *Ex-President of the Harveian Society of London*, 15, Greville Road, Kilburn, N.W. C. 1889-o.
- F.F. MOULLIN, J. A. MANSELL, M.A., M.B.Oxon., M.R.C.P., *Physician to the Hospital for Women, Soho, Assistant Physician for Diseases of Women to the West London Hospital*, 69, Wimpole Street, w. C. 1884. Hon. Sec. 1887-8. V.P. 1889. Libr. 1892. Treas. 1893.

- Elected.
 L. 1885 MUNDÉ, PAUL F., M.D., *Professor of Gynecology at the New York Polyclinic, and at Dartmouth College, 20, West Forty-fifth Street, New York, U.S.A.* V.P. 1889.
- F.F. MUNRO, ROBERT H., M.B., C.M.Edin., Friockheim, Arbroath, Forfarshire.
- 1893 MURPHY, G. WYNDHAM, B.A., M.B., M.Ch., &c., 98, Gloucester Crescent, Hyde Park, w.
- F.F. MURPHY, JAMES, M.A., M.D.Dub., *Surgeon to the Sunderland Infirmary, Holly House, Sunderland.* Hon. Loc. Sec. V.P. 1892.
- 1887 MURRAY, CHARLES STORMONT, L.R.C.S.Edin., L.S.A., L.M.Ed., *Anaesthetist Samaritan Hospital, 85, Gloucester Place, Portman Square, w.*
- 1885 MURRAY, ROBERT MILNE, M.A.St. And., M.B.Edin., F.R.C.P.Edin., F.R.S.E., *Assistant Physician Maternity Hospital; Lecturer on Midwifery and Gynecology, Edinburgh School; Physician for Diseases of Women to the Western Dispensary, 10, Hope Street, Edinburgh.* C. 1886.
- 1891 MURRAY, W., M.D., F.R.C.P., *Consulting Physician Newcastle-on-Tyne Hospital for Sick Children, 34, Clayton Street West, Newcastle-on-Tyne.*
- F.F. MUTCH, F. ROBERTSON, M.D., C.M.Aberd., "Strathgairn," Goldsmith Street, Nottingham.
- 1891 NAPIER, A. D. LEITH, M.D., M.R.C.P., F.R.S.E., *Physician to Out-Patients Chelsea Hospital for Women, Assistant Physician Royal Maternity Charity of London, 67, Grosvenor Street, w.* C. 1892. Hon. Sec. 1893. Editor 1894.
- 1889 NAUMANN, J. C. FRANCIS, M.D.Brux., L.R.C.P.Lond., M.R.C.S. Eng., *Physician Italian Hospital, 125, Gower Street, w.c.*
- 1891 NEDWILL, COURTNEY, M.D., Christchurch, Canterbury, New Zealand.
- L. 1886 NELSON, DANIEL THURBER, M.D., 2400, Indiana Avenue, Chicago, U.S.A.
- L. F.F. NETHERCLIFT, WILLIAM HENRY, F.R.C.S.Ed., Junior Athenæum Club, Piccadilly, w.
- L. F.F. NEUGEBAUER, FRANZ, M.D., *Assistant de la Clinique Gyniatrique à l'Université de Varsovie, Leszno, 33, Warsaw, Russia (Poland).* V.P. 1887.
- 1891 NEWTON, R. C., M.R.C.S., M.S.Durh., *Surgeon Newcastle-on-Tyne Lying-in Hospital, 18, Eldon Square, Newcastle-on-Tyne.*
- F.F. NUNN, T. W., F.R.C.S., *Consulting Surgeon Middlesex Hospital, 8, Stratford Place, w.* C. 1884. V.P. 1886.
- F.F. NUTT, WILLIAM ANTHONY, L.S.A.Lond., Craven House, Northumberland Avenue, w.c.
- L. 1889 O'CALLAGHAN, ROBERT, L.R.C.P., F.R.C.S.I., Harley Street, w. C. 1891.
- 1885 O'DONNELL, THOMAS J., L.K.Q.C.P.I., L.M., L.R.C.S.I., *Surgeon-Major Army, Oorgaum, Mysore State, India.*
- 1891 OLIVER, THOS., M.A., M.D., F.R.C.P., *Professor of Physiology, University, Durham, Physician Newcastle-on-Tyne Infirmary, 7, Ellison Place, Newcastle-on-Tyne.* C. 1892.

Elected.

- 1885 ORAM, RICHARD R. W., L.R.C.P.Lond., M.R.C.S.E., Cermyll, Wandsworth Common. C. 1890.
- 1893 OSBURN, CECIL A. P., F.R.C.S.Ed., L.R.C.P.Ed., The Oaks, Hythe, Kent.
- L. 1889 OSTROM, H. J., M.D., 42, West 48th Street, New York, U.S.A.
- F.F. PADMAN, JOHN, M.R.C.S.Eng., 22, Bloomsbury Square, w.c.
- L. 1888 PARKINSON, J. TAYLOR, M.D., Brook View, Crystal Brook, South Australia.
- 1886 PARSONS, JOHN INGLIS, M.D.Dur., M.R.C.P., *Physician to Out-patients, Chelsea Hospital for Women*, 3, Queen Street, Mayfair, w. C. 1890. Hon. Sec. 1892.
- 1890 PECK, F. S., *Surgeon Major Bengal Army*, 3, Percival Road, Clifton, Bristol.
- 1891 PETTER, WALTER, M.B., Stanhope Road, Darlington.
- 1891 PHILIPSON, Professor G. H., M.A., M.D.Cantab., D.C.L., F.R.C.P., *Professor of Medicine, University, Durham, Senior Physician Newcastle-on-Tyne Infirmary*, 7, Eldon Square, Newcastle-on-Tyne.
- F.F. PICKETT, JACOB, M.D.St. And., L.R.C.P.Edin., L.M., M.R.C.S.Eng., L.M., L.S.A., 26, Colville Square, w.
- L. F.F. PINARD, ADOLPHE, M.D., *Professeur à la Faculté, Accoucheur de Lariboisière*, 11, Rue Rocqueline, Paris.
- F.F. PLATT, WILLIAM HENRY, L.R.C.P.Edin., L.R.C.S.I., St. James's Lodge, West End Lane, Hampstead, n.w. C. 1890.
- L. 1885 POLK, WILLIAM M., M.D., *Ex-President New York Obstetrical Society*, &c., &c., 7, East Thirty-sixth Street, New York, U.S.A.
- 1886 POPE, HARRY CAMPBELL, M.D., F.R.C.S.Lond., 280, Goldhawk Road, Shepherd's Bush. C. 1890.
- 1891 POULTER, REGINALD, M.R.C.S., L.R.C.P., 31, Ridgmount Gardens, w.c.
- 1888 POWELL, HENRY WILLIAM FITZGERALD, F.R.C.S.Edin., L.R.C.P., 7, Connaught Street, Hyde Park, w.
- F.F. PURCELL, FERDINAND ALBERT, M.D., M.Ch., R.U.I., M.R.C.S., L.M.Eng., *Surgeon to the Cancer Hospital, Brompton*, 7, Manchester Square, w. C. 1888-89-93.
- L. F.F. PUREFOY, RICHARD DANCER, M.D., T.C.D., F.R.C.S.I., *Obstetric Surgeon Adelaide Hospital*, 20, Merrion Square, Dublin. C. 1884-7.
- 1887 RAE, GEORGE A., L.R.C.P., L.R.C.S.Ed., 1, Outram Terrace, Stoke Devonport.
- 1887 RANNY, GEORGE E., M.D., Lansing, Michigan, U.S.A.
- F.F. RASCH, ADOLPHUS A. F., M.D., M.R.C.P., *Physician for Diseases of Women and Children to the German Hospital, Physician to Training Hospital, Tottenham*, 7, South Street, Finsbury, e.c. C. 1891.
- F.F. RAWLINGS, JOHN ADAMS, M.R.C.P.Edin., M.R.C.S.Eng., *Physician to the Swansea Hospital*, Preswylla, Swansea. C. 1888-9.
- L. 1887 REED, CHARLES A. L., M.D., *Professor of Gynecology and Abdominal Surgery at the Cincinnati College of Medicine and Surgery, and Surgeon to the Cincinnati Free Surgical Hospital for Women*, Cincinnati, Ohio.

Elected.

- F.F. REEVES, HENRY ALBERT, F.R.C.S.Edin., *Surgeon to the Hospital for Women*, 7, Grosvenor Street, w. C. 1884-7. V.P. 1892.
- F.F. REID, W. LOUDON, M.D.Glas., F.F.P.S.Glas., *Professor of Midwifery and Diseases of Women and Children, Anderson's College, Glasgow, Physician to Dispensary for Diseases of Women, Western Infirmary*, 7, Royal Crescent, Glasgow. C. 1888-9.
- F.F. RICHARDSON, JOHN HUMPHREY HOWARD, M.R.C.S., L.S.A., 22, North Street, Wandsworth, s.w.
- 1887 RICHMOND, THOMAS, L.R.C.P.E., L.F.P.S.G., 2, West Garden Street, Glasgow.
- L. 1888 RICKETTS, E. S., M.D., 93, East Fourth Street, Cincinnati, Ohio, U.S.A.
- F.F. RILEY, JAMES, L.R.C.P.Edin., M.R.C.S.Eng., L.M., L.S.A., 131, St. George's Road, South Belgrave, s.w.
- L. F.F. ROBERTS, D. LLOYD, M.D., F.R.C.P., F.R.S.Edin., *Obstetric Physician to the Manchester Royal Infirmary, Physician to St. Mary's Hospital, Manchester, and Lecturer on Clinical Midwifery and the Diseases of Women in Owens College*, 11, St. John's Street, Manchester. C. 1884. V.P. 1886.
- F.F. ROBERTS, THOMAS, L.S.A.Lond., *District Surgeon Royal Maternity Charity*, Fallooden House, 95, Tredegar Road, Bow, E.
- L. F.F. ROBERTSON, A. MILNE, M.D.Edin., Gonville House, Roehampton, s.w.
- 1888 ROBSON, ARTHUR W. MAYO, F.R.C.S.Eng., L.R.C.P.Lond., *Professor of Surgery, Yorkshire College, Surgeon Leeds General Infirmary*, Church Lane House, Adel, near Leeds. C. 1893.
- F.F. ROOTS, WILLIAM HENRY, M.R.C.S.Eng., Canbury House, Kingston-on-Thames.
- L. 1885 ROSEBRUGH, JOHN WELLINGTON, M.D., Hamilton, Ont., Canada.
- L. 1888 ROSS, JAMES F. W., 481, Sherbourne Street, Toronto, Canada.
- F.F. ROUTH, CHARLES HENRY FELIX, M.D., M.R.C.P., *Consulting Physician to the Samaritan Free Hospital*, 52, Montague Square, w. V.P. 1884-7. C. 1888 & 1892. Pres. 1890.
- L. F.F. RUSSELL, LOGAN D. H., M.D., M.R.C.S., Government Park, St. Catherine, Jamaica.
- F.F. RYLEY, J. BERESFORD, M.D.Brux., M.R.C.S., L.R.C.P.Ed., 54A, Welbeck Street, Cavendish Square, w.
- F.F. *SALTER, THOMAS KNIGHT, M.R.C.S.Eng., L.F.P.S.C.G. (retired).
- F.F. SAVAGE, THOMAS, M.D., M.R.C.P.Lond., F.R.C.S.Eng., *Professor of Gynaecology, Mason's College, Surgeon Birmingham and Midland Hospital*, 32, Newhall Street, Birmingham. C. 1884-6. V.P. 1887. Pres. 1894.
- L. 1886 SAWYER, EDWARD WARREN, M.D., 3733, Vincennes Avenue, Chicago, U.S.A.
- 1892 SCHACHT, F. F., M.D., B.A.Cantab., *Physician to Out-Patients, Chelsea Hospital for Women*, 68, Curzon Street, w. Hon. Sec. 1893.
- 1889 SCOTT, ALEXANDER THOMAS, M.R.C.S.Eng. and L.S.A., 8, Parkhurst Road, Camden Road, N.
- 1891 SHAPLEY, FRANK, M.R.C.S., Dunedin, Sidcup, Kent.
- 1887 SHAW, JOHN, M.D.Lond., M.R.C.P.Lond., *Obstetric Physician and Gynaecologist, North-West London Hospital*, Burlington House, Willoughby Road, Hampstead, N.W. C. 1888.

Elected.

- 1891 SHAW-MACKENZIE, J. A., M.B.Lond., *Physician to Out-Patients, Chelsea Hospital for Women*, 24, Savile Row, w. C. 1893.
- 1889 SIMPSON, ALEXANDER RUSSELL, M.D., F.R.C.P.Edin., F.F.P.S.Glas., F.R.S.E., *Professor of Midwifery and Diseases of Women, Edinburgh University, Physician for Diseases of Women, Royal Infirmary and Maternity Hospital*, 52, Queen Street, Edinburgh. V.P. 1890. Pres. 1892. C. 1893.
- 1887 SIMPSON, DAVID, M.A., M.B., C.M.Aberd., *Surgeon Captain Madras Army*, care of Messrs. Arbuthnot & Co., Madras.
- 1885 SIMPSON, JAMES HERBERT, M.D.Aberd., Hillmorton Road, Rugby. C. 1887.
- 1885 SINCLAIR, WILLIAM JAPP, M.A., M.D.Aberd., M.R.C.P.Lond., *Professor of Obstetrics and Gynaecology, Owens College, Physician to the Manchester Southern Hospital for Diseases of Women and Children*, 268, Oxford Road, Manchester. C. 1887-90, 1892-4. V.P. 1891.
- L. 1885 SKENE, ALEXANDER, J. C., M.D., 167, Clinton Street, Brooklyn, N.Y., U.S.A.
- F.F. SLIMON, WILLIAM, M.B.Glas., F.F.P.S.Glas., 566, Mile End Road.
- 1886 SLOAN, SAMUEL, M.D., F.F.P.S.Glas., *Consulting Physician to the Glasgow Maternity Hospital*, 5, Somerset Place, Sauchiehall Street West, Glasgow. C. 1889.
- L. 1887 SMART, DAVID, M.B., B.Sc.Edin., *Assistant Surgeon Hospital for Women, Liverpool*, 74, Hartington Road, Liverpool.
- 1889 SMITH, ALFRED J., M.B., M.B.R.U.I., M.Ch., M.A.O., *Professor of Midwifery and Diseases of Women, Catholic University, Dublin, Gynaecologist St. Vincent's Hospital*, 32, Lower Baggot Street, Dublin.
- L. F.F. SMITH, E. T. AYDON, L.S.A., Devon Lodge, 2, Alexandra Road, St. John's Wood, N.W.
- L. F.F. SMITH, HEYWOOD, M.A., M.D., M.R.C.P., 18, Harley Street, w. Hon. Sec. 1884-5. C. 1889-90. V.P. 1892-4.
- 1886 SMITH, JAMES GREIG, M.A., M.B. & C.M., F.R.S.E., *Professor of Surgery, University College, Bristol, Surgeon to the Bristol Infirmary*, 16, Victoria Square, Clifton, Bristol. C. 1887-9. V.P. 1890-2.
- 1891 SMITH, J. W., M.D., Balgonie House, Ryton-on-Tyne, Durham.
- F.F. SMITH, RICHARD T., M.D., M.R.C.P., *Physician to the Hospital for Women, Soho*, 17, George Street, Hanover Square, w. C. 1884-7. Hon. Sec. 1889-90. V.P. 1891-3.
- F.F. SMYLY, W. JOSIAH, M.D., T.C.D.; F.R.C.P.I., F.R.C.S.I., *Master of the Rotunda Hospital, Examiner in Midwifery R.C.P.I., Dublin*, 56, Fitzwilliam Square, Dublin. C. 1888-90. V.P. 1892.
- F.F. SMYTH, BRICE, B.A., M.B., M.Ch., T.C.D., *Consulting Physician Hospital for Sick Children, Physician Belfast Lying-in Hospital*, 13, College Square, Belfast. C. 1887. V.P. 1889.
- 1893 SMYTH, JOHN WALKER, [L.R.C.P. & S.Edin., 13, Colebrooke Row, City Road, N.
- F.F. SPANTON, W. DUNNETT, F.R.C.S.Edin., *Surgeon to the North Staffordshire Infirmary, Chatterley House, Hanley, Staffordshire*. C. 1887-9. V.P. 1890-92.

Elected.

- F.F. STEER, WILLIAM, M.R.C.S., L.S.A., *Medical Superintendent, Fulham Union Infirmary*, Fulham Palace Road, Hammersmith, w.
- 1889 STEKOULIS, CONSTANTIN, M.D., Péra, Rue Souterazi 7, Constantinople.
- 1893 STEPHEN, GEORGE CALDWELL, M.D., C.M.McGill, 88, Sutherland Avenue, w.
- 1885 STEVENSON, EDMUND SINCLAIR, L.R.C.P.Edin., M.R.C.S.Eng., Rondebosch, Cape of Good Hope.
- 1892 STEWART-MCKAY, W. J., M.B., M.Ch., B.Sc., 36, College Street, Hyde Park, New South Wales.
- L. 1888 STONE, ISAAC S., M.D., 2936, Fourteenth Street, N.W. Washington, D.C., U.S.A.
- 1893 STONEY, RALPH, L.R.C.S.I., L.R.C.P.I., The Limes, 71, Approach Road, Victoria Park, N.E.
- L. 1885 STRANGE, FREDERICK WILLIAM, M.R.C.S.Eng., M.C.P. & S. Ontario, 218, Simcoe Street, Toronto.
- 1886 STRANGE, W. HEATH, M.D., 5, Grosvenor Street, w.
- 1891 STRAUSS, LEON, M.D., Louisville, Kentucky, U.S.A.
- 1886 STUBBS, PERCY BELFORD TRAVERS, L.R.C.P., L.R.C.S., Cape Town, S. Africa.
- L. 1892 SULLIVAN, W. H. D., 80, Collins Street, Melbourne, Victoria.
- 1885 SUNDERLAND, SEPTIMUS, M.D., M.R.C.S., L.R.C.P.Lond., *Physician to the Royal Hospital for Women and Children*, 36, Bruton Street, w. C. 1894.
- L. 1885 SUTTON, RHOADS STANBURY, M.D., 419, Penn Avenue, Pittsburgh, U.S.A.
- F.F. SWAIN, W. PAUL, F.R.C.S., *late Surgeon Royal Albert Hospital, Devonport*, 17, The Crescent, Plymouth. C. 1884-7.
- 1893 SWANTON, JAMES HUTCHINSON, M.D., M.Ch., &c., R.U.I., Church Street, Edmonton, Middlesex.
- F.F. SWAYNE, JOSEPH GRIFFITHS, M.D.Lond., *Consulting Physician, Accoucheur Bristol General Hospital*, 74, Pembroke Road, Clifton, Bristol. V.P. 1886-8.
- L. 1888 SWEETNAM, LESLIE MATTHEW, M.D., Toronto, Canada.
- L. F.F. TAIT, LAWSON, F.R.C.S., *Consulting Surgeon to the Birmingham and Midland Hospital for Women*, 7, The Crescent, Birmingham. V.P. 1884-6. Pres. 1886. C. 1887-9.
- L. F.F. TAYLER, WILLIAM HENRY, M.D.St.And., M.R.C.S.Eng., L.M., L.S.A., 13, Grosvenor Gardens, St. Leonards.
- L. F.F. TAYLOR, JOHN WILLIAM, F.R.C.S., *Surgeon to the Birmingham and Midland Hospital for Women*, 59, Bath Street, Birmingham. C. 1891. V.P. 1894.
- F.F. TEMPLE, THOMAS CAMERON, M.R.C.S., L.S.A., Sheffield, Beds.
- 1887 THOMAS, ARTHUR WILLIAM, M.R.C.S., L.S.A.Lond., Berwyn, Bolingbroke Grove, Wandsworth Common, s.w.
- L.F. THOMAS, HUGH, M.R.C.S., L.S.A., *Surgeon Birmingham Lying-in Charity*, The Grange, Coventry Road, Birmingham.
- 1886 THOMPSON, J. H., M.D., 60, Via Due Macelli, Rome.
- 1885 THOMSON, DAVID, M.D., Park Square, Luton.
- L. 1889 TOWNSEND, FRANKLIN, Jun., M.D., 2, Park Place, Albany, N.Y., U.S.A.

Elected.

- 1892 TRAVERS, W., M.D., F.R.C.S., *Physician to the Chelsea Hospital for Women*, 2, Phillimore Gardens, S.W. C. 1894.
- L. 1889 TUOHY, JOHN FRANCIS, M.D., M.Ch., *Surgeon-Major I.M.S.*, Civil Surgeon, Saharunpur, N.W. Provinces, India.
- L. 1887 UNDERWOOD, EDWARD F., M.D., Port Bombay, India.
- L. 1885 VAN DER VEER, ALBERT, M.D., 28, Eagle Street, Albany, New York, U.S.A.
- 1891 WADD, F. J., M.B.Aberd., C.M., M.R.C.S., L.S.A., Prospect House, Richmond.
- L. 1888 WALKER, HOLFORD, M.D., 56, Isabella Street, Toronto, Ontario, Canada.
- 1889 WALLACE, ABRAHAM, M.D.Edin., C.M., F.F.P.S.Glas., *formerly Professor of Midwifery and Diseases of Women, Anderson's College, Glasgow*, 64, Harley Street, W. C. 1894.
- L. F.F. WALLACE, JOHN, M.D., *Obstetric Physician, Liverpool Royal Infirmary, Professor of Midwifery and Gynaecology, Liverpool Royal Infirmary*, 1, Gambier Terrace, Canning Street, Liverpool. C. 1884-6.
- L. F.F. WALTER, WILLIAM, M.A., M.D.Dub., F.R.C.S.I., *Physician to St. Mary's Hospital, Manchester*, 20, St. John Street, Manchester. C. 1884-91. Hon. Loc. Sec. V.P. 1888-90.
- 1891 WARD, J. L. W., J.P., L.R.C.P., Merthyr Tydvil, Glamorganshire.
- 1891 WATSON, P. H., L.R.C.P., M.R.C.S., 72, Jesmond Road, Newcastle-on-Tyne.
- F.F. WEBB, VERE GEORGE, L.K.Q.C.P.I., L.M., 64, New Kent Road, S.E.
- 1889 WEBSTER, THOS. J., M.R.C.S.Eng., L.S.A., Brynglas, Merthyr Tydvil, S. Wales.
- 1894 WHITE, CRESSWELL FITZHERBERT, M.B., C.M.Aber., L.S.A., Milborne-Port, Sherborne, Somerset.
- 1886 WHITE, JOHN VERNON, M.D., Oscoda, Michigan, U.S.A.
- 1886 WHITTLE, EDWARD GEORGE, M.D.Lond., F.R.C.S., *Surgeon Royal Alexandra Hospital for Children*, 9, Regency Square, Brighton. C. 1889-90.
- 1890 WILLIAMS, CYRIL JOHN, L.R.C.P., Woodhall Spa, Lincolnshire.
- L. 1888 WILLIS, C. FAN COURT, M.D., M.R.C.P., Quetta, Baluchistan.
- 1887 *WILSON, EDWARD, L.R.C.P.Lond., M.R.C.S.Eng. (travelling).
- 1888 WILSON, F., M.D., M.R.C.S., Flauwakraal, P.O., District Wodehouse, Cape Colony.
- L. 1886 WILSON, H. P. C., M.D., *Gynaecologist to St. Vincent's Hospital*, 814, Park Avenue, Baltimore, U.S.A. V.P. 1891-3.
- L. F.F. WILSON, ROBERT T., M.D., *Assistant Surgeon, Women's Hospital of Maryland*, 820, Park Avenue, Baltimore, Maryland, U.S.A.
- F.F. WILSON, WILLIAM, M.D., 80, Broad Street, Pendleton, Manchester.
- 1888 WITHINSHAW, CHARLES WESLEY, L.R.C.P.Edin., L.R.C.S.Edin., 3, Earlstoke Villas, Lansdowne Road, Clapham, S.W.
- 1887 WOOD, EDWARD, L.R.C.P.L., M.R.C.S.E., L.S.A., Glebe Lodge, Windmill Hill, Enfield.

Elected.

- 1890 WOOD, JAMES C., M.D., Ann Arbor, Mich., U.S.A.
 L. 1891 WOODS, HUGH, M.D., B.S., M.A.O., 11, Archway Road, Highgate.
 L. 1889 Worrall, RALPH, M.D., 20, College Street, Sydney, N.S.W.
 F.F. WORTHINGTON, GEORGE FINCH JENNINGS, M.R.C.P.I., M.R.C.S.
 Eng., Thorncliffe, Poole Road, Bournemouth West.
 L. 1885 WYLIE, WALKER GILL, M.D., 40, West Fortieth Street, New York,
 U.S.A. V.P. 1894.
 F.F. WYMAN, W. SANDERSON, M.D.St. And., F.R.C.S., Red Brae, 18,
 Putney Hill, s.w.
- 1891 YOUNG, MOFFAT, L.R.C.P., 4, Upper Church Street, West Hartlepool.
- 1891 ZINCKE, GUSTAV, M.D., 413, Elm Street, Cincinnati, U.S.A.
 1889 ZOUCHE, ISAIAH DE, M.D., Dunedin, New Zealand.

Honorary Fellows.

- 1885 EMMETT, THOMAS ADDIS, M.D. (New York)
- 1885 GOODELL, WILLIAM, M.D. (Philadelphia)
- 1885 HARVEY, ROBERT, M.D. (Calcutta)
- 1885 HEGAR, A., M.D. (Freibourg)
- 1885 KEITH, THOMAS, M.D. (London)
- 1885 KOEBERLÉ, F., M.D. (Strasbourg)
- 1885 LAZAREWITCH, J., M.D. (St. Petersburg)
- 1885 MARTIN, A., M.D. (Berlin)
- 1885 PORRO, S., M.D. (Milan)
- 1885 TARNIER, S., M.D. (Paris)
- 1885 THOMAS T. GAILLARD, M.D. (New York)
- 1885 WINCKEL, F., M.D. (Dresden)
- 1887 BARNES, ROBERT, M.D. (London)
- 1887 TAIT, LAWSON, F.R.C.S. (Birmingham)
- 1891 POZZI, S., M.D. (Paris)
- 1893 KÜFFERATH, M.D. (Brussels)

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- 1886 LAWSON TAIT, F.R.C.S.
- 1887 G. GRANVILLE BANTOCK, M.D., F.R.C.S.Ed.
- 1888 ARTHUR W. EDIS, M.D., F.R.C.P.
- 1889 ARTHUR V. MACAN, M.B., F.K.Q.C.P.
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- 1892 ALEXANDER RUSSELL SIMPSON, M.D.
- 1893 FREDERICK BOWREMAN JESSETT, F.R.C.S.

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Allahabad, N. W. P. India.

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Amsterdam, Holland.

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Bedford.

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Padstow.

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Plymouth.

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Quetta, Baluchistan.

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St. Leonards.

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St. Louis, U.S.A.

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St. Petersburg, Russia.

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Bury, E. C., M.D.

Wolverhampton.

Edge, Frederick, M.D., M.R.C.P.,
F.R.C.S.

Jackson, T. V., F.R.C.S.E.

Lycett, J. A., M.D., M.R.C.P.E.

Woodhall Spa.

Williams, C. J., L.R.C.P.

Woodstock, Canada.

Brownlee, Milne, M.D.

*Fellows who have not communicated their
addresses.*

Salter, T. K., M.R.C.S.

Wilson, E., M.R.C.S.

the 1990s, the number of people in the world who are undernourished has increased from 600 million to 800 million (FAO 1996).

There are a number of reasons why the world's population is becoming more undernourished. First, the world's population is growing rapidly. The world population is projected to increase from 5.5 billion in 1990 to 7.5 billion in 2020 (UNEP 1992). Second, the world's population is becoming more urbanized. The world's population is projected to increase from 25% in 1990 to 50% in 2020 (UNEP 1992). Third, the world's population is becoming more dependent on food imports. The world's population is projected to increase from 10% in 1990 to 30% in 2020 (UNEP 1992).

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THE BRITISH GYNÆCOLOGICAL JOURNAL.

VOL. IX.—No. 33.

MAY, 1893.

THE BRITISH GYNÆCOLOGICAL SOCIETY

THURSDAY, FEBRUARY 9, 1893.

F. BOWREMAN JESSETT, F.R.C.S., PRESIDENT, IN THE CHAIR.

PRESENT: 33 Fellows and Visitors.

J. H. Swanton, M.D. Dublin; C. S. P. Osborne, L.R.C.P. and S. Edin.; and R. J. Colenso, M.S., M.B. Oxon., were proposed for election.

Professor Küfferath's election as an Honorary Fellow was confirmed.

Dr. HODGSON showed specimens, and narrated a case, of *multiple sarcomata*.

Mrs. S., aged 45, was the mother of eleven children, and had had two miscarriages; the last child three years since. She applied to a general hospital on 11th August last, stating that she was five months pregnant, and had noticed ten weeks previously a growth in her left breast accompanied by shooting pains. The growth occupied the whole of the upper half of the breast, and extended down on the inner side; was freely movable and nodular. The

nipple was not retracted, and the skin did not dimple. There was a hard, movable gland in the left axilla the size of a hazel nut. The case was seen in consultation and diagnosed chronic mastitis, and the patient given a tonic and belladonna plaster, and told that the tumour would probably disappear after her confinement. She was seen a week later, and again on September 1st, when the growth having considerably enlarged she was recommended for admission, an offer of which she did not avail herself.

She was confined on December 10th of a female child which, however, died within one hour. The child was born mottled, not the ordinary cyanotic color of children who live but a short time.

The mother did well for a week, but, becoming gradually weaker, died of exhaustion on January 15th, or five weeks after giving birth to the child. There was no hæmorrhage or other apparent cause of death.

The *post-mortem* showed the left breast to be one large sarcoma, and in the right breast several smaller sarcomas. Anterior mediastinal glands sarcomatous. Heart-walls studded with small sarcomata. Liver, almost the whole of the right half, one huge sarcoma. Spleen enlarged. Right kidney, several sarcomatous growths; left kidney enlarged. Uterus healthy and involution almost complete. Right ovary, one large sarcoma; left, several smaller ones. Mesenteric glands all sarcomatous. A round sarcoma about one and a-half inches in diameter was situated directly over the mons veneris and immediately under the skin.

The patient suffered no inconvenience with the exception of a little pain down the left arm, and went about her household duties as usual up to the day of her confinement.

The questions asked were:—Is it usual for a patient so extensively sarcomatous to suffer no inconvenience? Where was the primary sarcoma?

The uterus and ovaries are on the table.

The sarcomas are all round celled, excepting the right ovary, which contains myeloid cells.

Dr. PURCELL and the PRESIDENT briefly commented upon the case.

Dr. HEYWOOD SMITH exhibited a specimen of

Epithelioma of the Cervix Uteri removed by Supra-vaginal Amputation.

M. A. G., aged 47, married twenty-five years, ten children, the youngest seven years ago, and no miscarriages, was admitted into Warrington Lodge, December 14th, 1892. She first noticed a show in June. Two months ago she consulted a practitioner who "thought there was a growth," but who advised some delay. On examination, the uterus was found to be rather low, the cervix bulky, irregular, and bleeding easily on being touched. The operation was performed on December 16th, in the presence of Mr. Bowreman Jessett and Mrs. Scharlieb. The bladder was very thin, and had to be stripped up above the line of the disease. In the course of removal Douglas' pouch was opened, and the left ovary was found to protrude. The vagina was carefully packed with iodoform gauze, and the patient put to bed. At 9.15 Dr. Heywood Smith was sent for as there was considerable hæmorrhage, and the patient was pulseless. The posterior border of what was left of the uterus was drawn down by a pair of forceps, which were left on, and which controlled the hæmorrhage; the vagina was then carefully re-packed with a kite-tail plug, the first two or three being soaked with tincture of matico. The next day the plugs and the forceps were removed, and the vagina replugged with iodoform gauze. From that time, the patient made an uninterrupted recovery. A small nodule at the upper part of the vagina had to be destroyed with the actual cautery. The patient left the hospital on February 1st. She was seen some weeks afterwards, when the vagina was found perfectly healed, ending in a smooth *cul-de-sac*.

Dr. BANTOCK and Dr. PURCELL commented on the case.

Dr. MACNAUGHTON JONES exhibited a *large multilocular*

ovarian cyst which he removed from a lady, a widow, aged 39, in which there was a great mass of solid matter, so much so that the tumour had been diagnosed previously as a case of uterine fibroma. There was much difficulty in removing the tumour, which was done after the emptying of several of the smaller cysts and by turning it inside out. At the same time the right ovary, which was about the size of an orange, with a hydrosalpinx were taken away. The lady has since married.

Enlarged Ovaries with Paroöphoritic Cysts.

Dr. MACNAUGHTON JONES showed the ovaries of a lady aged 36 years, with a paroöphoritic cyst connected with each. The patient had one child 8 years of age; she had been for five years in constant pain, for the past five months had been in bed, and her medical attendant stated that morphia completely failed to give relief. She had made an uninterrupted recovery.

Case of Paroöphoritic Blood Cysts.

Dr. MACNAUGHTON JONES showed the ovaries and Fallopian tubes of a patient aged 39, married, one child, who had first come to him in 1889 with retroversion of the uterus and enlarged ovaries. Notwithstanding palliative treatment she continued to suffer great pain, and life became intolerable. On recently operating a large paroöphoritic cyst, with the Fallopian tube lying over it, was found at either side. The cysts were filled with blood. The recovery has been uninterrupted.

The PRESIDENT delivered his Inaugural Address.

Presidential Address, delivered at the British Gynæcological Society on February 9th, 1893. By FRED. BOWREMAN JESSETT, F.R.C.S., President.

GENTLEMEN,—I take this, the first opportunity since our last meeting, of thanking you most heartily for the unsolicited and unexpected honour you have conferred upon me in electing me your President for the ensuing year.

It is with just pride that I appreciate the high esteem and confidence placed in me by the Fellows of this scientific Society, with whom I have worked during the last six years, and from whom I have at all times experienced the greatest courtesy and good will. Gentlemen, I will do my utmost to justify you in your choice, but I must remind you that the welfare of a large Society like ours does not by any means rest with the President; he is only an unit and for the work of the session to be successful it is the duty of every Fellow to support the President by his attendance at the meetings, and by joining in the discussions. There is no way that I know of, by which scientific material can be utilised to better advantage, than by subjecting the product of individual brains and industry to intelligent, honest, and fearless criticism.

We must not forget that we are all mere students in our craft, every day brings forth something fresh, and I can safely say that in no department in medicine or surgery have such gigantic strides been made during late years than in that department which our Society represents. If proof is wanted of this, we need not, I think, go further than the pages of our Journal, which faithfully reports the amount of scientific work done by ourselves and by gynaecologists all over the world.

I am sure, then, that Fellows of this Society will not allow the work of the ensuing year to be less scientific, less progressive, or less useful than that which has been so well done in previous years.

I hope that we shall be able to submit to you a programme of such great practical interest and value as will ensure a goodly attendance at our meetings, and that the Fellows will discuss and criticise the views of those who will contribute to our work. By this free interchange of thought, experience, and practice, not only will our own knowledge be increased, but the knowledge so gained will prove of vital service to those who may seek our advice and aid.

It has been thought by some that the tax of attendance so often as once a fortnight at these meetings has been too

great a strain upon many of our Fellows, more especially as some have to take part in the proceedings of other learned societies.

This feature in our organisation has been duly discussed in Council, and it has been decided to reduce the number of our meetings, and modify some of the articles of Association. By this means we hope to increase the value of our work, and obtain a wider latitude for discussion. I hope also that papers on subjects that are of every-day occurrence will be brought before the Society, papers which will be not only of interest to the operating gynæcologist, but which will be of practical use to the general body of our Fellows, for whom the discussion of such subjects in this Society is of as great if not greater, importance; and it is to this section of our Fellows that I look for much valuable information, as by their constant and intimate attendance upon suffering women, they must often be able to collect material which is of the most vital interest and importance.

I trust I may not, then, appear to be taking advantage of my position, or in any way appear to be discourteous, if I should suggest a few subjects which I think may profitably occupy some of our time and consideration. I allude especially to some of those minor ailments which are peculiar to the sex to which our attention is turned—ailments which in themselves are not dangerous to life, but which, from the pain and distress they occasion, often lead to complications, which may end in the nervous system and the general health being undermined, and the sufferer becoming a confirmed invalid. Among these I would include: (1) Uterine displacements; (2) Disorders of menstruation; (3) Uterine hæmorrhage; (4) Pelvic pain due to displacement or malformation of genitals; (5) Diseases of the vulva; (6) Vascular growths of the urethra; (7) Disease of the bladder; (8) Menopause in some of its relations to disease; (9) Salpingitis; (10) Urinary fistulæ; (11) Fæcal fistulæ; (12) Disease of pelvic cellular tissue. All these diseases are of the greatest interest to those engaged in general practice as well as to the gynæ-

cologist. Short papers on any of these subjects would, I am sure, give rise to most useful and interesting discussions.

Among the more serious ailments of suffering women I hope during the session we may have some interesting debates on the treatment of uterine cancer. This subject, which is, perhaps, of the greatest possible interest, both to the profession and the public, cannot, in my opinion, have too great attention paid to it, as it is only by the early diagnosis of this dread disease that permanent good can be expected from operative interference. I would invite papers on this all-important subject, and if pathologists would only devote more attention to the microscopical appearances of ordinary erosion, giving, where practicable, coloured drawings of the different stages, accompanied by microscopic sections, and gradually work out the different stages from this condition, to carcinomatous or epitheliomatous changes, I think much may be done to enable us to diagnose with certainty the early developments of cancer of the uterus by *clinical* examination. Another interesting subject for debate I think might be found in the advancement made in the treatment of the stump after abdominal hysterectomy.

One more suggestion and I have done ; it is that we may have during the year a good exhibition of specimens, with short details of their relations and treatment. And here I am sure you will pardon me if I allude to what I consider to have been a shortcoming in this department of our work. It has been, I think, too much the custom to exhibit to-day a specimen removed yesterday, and to allow it to be buried in oblivion to-morrow. Now nobody recognises the value of specimens more than I do. I may say I have learnt at this Society more from the description of specimens which have been shown, and the discussion which has taken place upon the methods of operating, than from any other source, but I have always felt that this bare exhibition and discussion fell short of what we should require, and I have often wondered what has been the results of these operations.

If the gentlemen who show these specimens would be

good enough to give brief notes of the cases, and subsequently furnish the Society with the after-treatment and results in a short paper, which should be accompanied with the specimen to refresh the memory of the Fellows, I am sure a most valuable addition to our knowledge would accrue. In case there is not time to do this, I would suggest that such brief notes might be sent for acceptance to the Editor of the Journal for publication. I venture to make these suggestions, as I am sure we are all agreed that it is by results that the practical value of specimens must be measured.

I trust you will pardon me for occupying so much time in these few preliminary remarks, and I will now ask your attention for a short time to a brief review of a subject which has of late occupied much of my time and attention; I allude to a review of the results of the operation of vaginal hysterectomy and supra-vaginal amputation of the cervix for cancer of the uterus, and a comparison of the benefits which accrue, and the dangers attending these operations (so far as statistics can be relied on to prove). A distinguished American physician, Dr. Jackson, in his Presidential Address, delivered at the meeting of the American Gynæcological Society, held at Brooklyn in 1891, took occasion to allude to certain abuses which had crept into the practice of gynæcology. One of these was the alarming extent and frequency to which through the beneficial, but seductive agency of antiseptics, surgeons have been tempted to resort to dangerous and mutilating operations on the sexual organs of women. That such abuses have existed in the past there can be no doubt, but I believe the time has now arrived when gynæcologists have discovered that much may be done without having recourse to such radical measures, as some, especially some of the continental gynæcologists, have thought to be necessary; I allude in this paper to the wholesale performance of vaginal hysterectomy. This operation has been performed on the continent, not only for cancer of the uterus, but also for uterine displacement and prolapse of the organ.

The immediate mortality after total extirpation of the

uterus by these surgeons, is reported to have decreased to about 10.5 per cent. as a general average, while certain operators claim to have succeeded in reaching a death-rate as low as three or four per cent. But how can these statistics be relied on if it be true that this operation has been performed for affections of the uterus other than cancer. It must be borne in mind in comparing the results of any two operations, that such operations must be performed for similar diseases under as nearly as possible similar circumstances, and in patients whose general condition is practically the same. Now it must be obvious if operators, who claim the excessively low mortality of three or four per cent., include in their list of cases extirpation of the uterus for displacements, prolapse and other minor affections of the organ, and sum these up with the results of cases of vaginal hysterectomy for cancer, I say it is obvious that these statistics are not reliable; in fact, they are utterly valueless and misleading. In comparing the comparative merits of such operations as supra-vaginal amputation of the cervix uteri for cancer, and total extirpation of the uterus for the same disease, not only must the immediate mortality after the operation be taken into consideration, but also the state the patient is left in after the operation. In dealing with this comparison then, we must compare only those cases in which the operations have been performed for cancer, we must have no watering down of statistics by the addition of operations which have been done for minor ailments. We must also of necessity confine our remarks to those cases in which the disease is limited to the vaginal portion of the uterus, as it is obvious if the body of the uterus is involved the high operation is not practicable, and the only operation that can be practised with any hope of relief must be that for total extirpation of the organ.

Now for a few minutes let us examine into the different dangers which may follow total extirpation of the uterus; they are by no means either few or trivial. Intestinal obstruction has been met with on several occasions after vaginal hysterectomy, the result of adhesion of a loop of

intestine to the edges of the wound caused by the removal of the uterus.

In the *American Journal of Obstetrics*, vol. xxiii., Dr. Coe has reported two cases which occurred in his own practice, and eight which he collected from other sources. In all of these laparotomy was performed for the relief of the obstruction with fatal results. The pathological conditions and clinical symptoms were almost identical in these cases; in each there was an adhesion of one or more coils of intestine to the edges of the vaginal wound, with distensions and bending of the gut above the point of adhesion, thus obstructing the lumen. Although there was intense congestion of the serous coverings of the intestine, in neither instance was general peritonitis found at the operation. In all but one case, death seemed to be due primarily to exhaustion, and, in those cases in which laparotomy was performed, to the shock of the operation. The symptoms continued indefinite until the fourth day, and the classical symptoms of intestinal obstruction, especially fœcal vomiting, appeared when it was too late to profit by them. Dr. Cullingworth, in giving the subsequent history of four cases of vaginal hysterectomy, says, two enjoyed perfect health until within a few days of their death. In each of these cases death resulted from intestinal obstruction, the cause of which in one case remains unknown, in the other it was due to pelvic adhesions.

Professor Reichel,¹ in an article on ileus after vaginal hysterectomy, reports three cases of intestinal obstruction.

Case I.—On the fourth day after operation showed symptoms of obstruction which increased until the seventh day, when laparotomy was performed, the patient dying on the table. The lower portion of the ileum was attached to the vaginal wound.

Case II.—Patient began to vomit soon after the operation. No flatus or fæces. On the eighth day fæcal vomit-

¹ *Zeitschrift für Geb. u. Gyn.*, Band xv., Heft. 1.

ing occurred. Laparotomy was performed on the ninth day, and a coil of ileum was found to be attached to the vaginal wound. Death occurred twenty-four hours after the operation.

Case III.—On third day bad colicky pains. Death from collapse on the eighth day. *Post-mortem*, coils of intestine were found adherent to the edges of the vaginal wound.

Other cases have been reported by Dr. Bokelmann,¹ Leopold,² and Landau,³ death resulting in each case. Later cases have been reported by Dr. Coe.⁴ This accident of intestinal adhesion to the raw surfaces seems to be more frequent when forceps are used to control hæmorrhage than when the ligature is used.

A second source of danger in this operation is met with chiefly in those cases in which the disease has extended somewhat laterally, from the risk of either dividing the ureters or including them in the ligature or forceps applied to the broad ligament to arrest hæmorrhage. Any surgeon who has performed vaginal hysterectomy frequently is well aware of this danger, and there are few who could not recall cases in which this accident has happened to them; there are several such cases recorded.

Vesico-vaginal, or recto-vaginal, fistulæ are by no means so rare as might be supposed after total extirpation of the uterus. There are several cases on record, and these could be, I think, considerably increased if all such accidents were reported. Vesico-vaginal fistulæ are especially liable to occur in those cases in which the disease is somewhat extensive and the pelvis contracted, necessitating a good deal of force to enucleate the uterus. This catastrophe does not sometimes declare itself for some days after the operation, but when the sloughs become detached, the surgeon, to his horror, on visiting his patient, finds urine trickling out of the vagina. Often the opening is so high up that it is difficult

¹ *Archives für Gyn.*, Band. xxv., Heft. 1.

² *Ibid.*, Band. xxx., Heft. 3.

³ *Berlin Klin. Wochenschrift*, 1888, No. 10.

⁴ *Am. Journal of Obstet.*, Vol. xxxiii., p. 469.

to locate the exact seat of the urinary fistula, and I need hardly point out that in these cases the hopes of closing the fistula must be very small.

Another source of danger is peritonitis, especially in those cases where the parts are of necessity much dragged and torn.

Sepsis, again, is answerable for many of the deaths, and lastly, severe and alarming hæmorrhage often takes place.

In referring to the statistics of the results of total extirpation of the uterus, Drs. Paul F. Munde and Burke, in a most instructive paper reported in the *Annual of Universal Medical Science*, Vol. 2, 1891, have reported on 429 cases, in which the operation was performed by several different operators, the immediate mortality averaging 10.5 per cent. on all cases.

The comparison of the operation when performed by different methods is very instructive; thus the mortality when ligature alone was adopted is as low as 6.6 per cent.; when the ligature and clamp were used it rose to 11.5 per cent., and when the clamp alone was the method employed for controlling the blood vessels, the deaths still further increased to 16.6 per cent. This large difference in the death-rate seems to be accounted for by the cases in which the ligature alone was used, being those in which the disease was limited, and the uterus readily drawn down out of the vulva. In such cases the high operation would, in my opinion, have been equally efficacious. So that it would appear that the higher rates of mortality might have been accounted for more by the extent of the disease than by the method adopted of securing the vessels.

In a recent discussion upon the relative merits of vaginal hysterectomy and supra-vaginal amputation for cancer of the uterus, which took place at the Obstetrical Society,¹ opinions seemed to differ materially, but the weight of the arguments appeared rather to tend in favour of the lesser operation. Dr. William Duncan, alluding to the mortality after total ex-

¹ *Lancet*, 1893, vol. i., p. 87.

tirpation referred to the series of cases reported by Professor Japp Sinclair, and observed that his mortality was certainly as small as that of supra-vaginal amputation. One cannot but think that Professor Sinclair must be excessively careful in his choice of cases, as the results of such experienced operators as Martin (Berlin), Fritsch, Schroeder, Gusserow, and others, do not show nearly such favourable results. It is true that Kaltenbach and Leopold acknowledge to a mortality of only 2.5 per cent. and 5 per cent. respectively.

It is difficult in the extreme to reconcile the different rates of success obtained by these surgeons, but my own experience certainly tends to the belief that the mortality, if all cases were reported, may be placed really at from 15 to 20 per cent.

Dr. Coe, in an article on the limits of vaginal hysterectomy for cancer of the uterus, refers to 19 cases operated upon by himself and Dr. Hunter in which the following results are given:—Died 6; recurrence within a month, 1; recurrence within seven months, 2; within six months, 3; lost sight of, 1; well at end of ten months, 1; too soon to determine result, 3.

Drs. Terrier and Hartmann¹ give details of a series of 34 vaginal hysterectomies with 8 deaths—1 from hæmorrhage on the seventh day; 2 died from shock and hæmorrhage in forty-eight hours; 2 died from shock on the third day; 2 succumbed to peritonitis. In one case a pair of forceps had pinched a loop of intestine, causing perforation, and in one case the uterus was everywhere adherent, and in the last case death resulted from phlebitis fourteen days after operation.

In considering the ultimate results, these physicians report 2 cases as well, without any recurrence after six weeks and four weeks respectively; 1 after four and a-half years; on the other hand relapse occurred in 8 cases at periods between one month and two years; 1 in two and

¹ *Revue de Chirurgie*, April, 1892.

a-half years, and 3 were free from disease at time of report ; at periods from eight months to three years after operation, 3 cases were incomplete, in 1 necessitating the opening of the *cul-de-sac* and bladder, and 2 had suspicious nodules at the side of the vagina.

The conclusions arrived at are that relapse is frequent, —about 70 per cent.—and often rapid, but may not manifest itself by signs noticeable to the patient until after a considerable time. Thirty per cent. of those who survive seem to be completely cured.

Dr. Bouilly,¹ at the Societie de Chirurgie, reports 30 cases on whom he had operated in 1888, with 7 deaths, since then he had done 20 others, making 50 cases in all, with 16 deaths among the 34 recoveries. Six have remained well for periods varying from 15 months to 4 years ; 2 patients had recurrence after 3 years ; 4 died after 2 years ; and 4 have been lost sight of. Among the 18 remaining, recurrence had been noticed in from 8 months to 2 years.

Dr. Reed,² in supporting the operation of total extirpation, records a series of 25 cases in which he had operated, with 2 deaths immediately resulting from operation, 2 deaths from recurrence within 2 years, and 1 death from recurrence within 11 months. The previous character of the disease is recorded in the 13 last cases of the series, as being from 2 to 5 months only ; in none of these was there recurrence. In a previous series of 10 cases in which the disease is reported to have lasted from 7 to 16 months, 2 died, 1 had recurrence in 20 months, 1 in 2 years, and in 2 the broad ligaments were involved.

Dr. Boldt,³ in the same journal, says if it can be positively shown that the cancer is limited to the portio vaginalis, or lower part of the cervix proper, then total extirpation *per vaginam* would be contra-indicated.

¹ *Revue de Chirurgie*, Jan., 1892.

² *American Journal of Obstetrics*, vol. xxvi., p. 890.

³ *American Journal of Obstetrics*, vol. xxvi.

Dr. Boldt records 44 operations, with 3 deaths, the immediate result of operation—I from probable ligature of the ureters. In 8 cases recurrence took place; in 10 it was too early after the operation to report remote results; 1 patient died from myo-carditis; in 1 the disease recurred at once, and in another within 3 months.¹

Dr. Florian Krug,² New York, gives us his personal experience with vaginal hysterectomy. He is strongly in favour of total extirpation in suitable cases, and reports 15 cases in which he had performed the operation during three years. Two of these were done for non-malignant disease of the uterus, and one for a doubtful case of malignancy, thus reducing the number to 12 cases. One of these died from the operation, and one had recurrence in five months after the operation. All the others are reported as having had no recurrence and being in perfect health. Nine of these cases have, however, only been operated on from 3 to 16 months before the reading of the paper, too short a time to give any reliable information as to recurrence.

From the few cases in which Dr. Krug has operated, it is evident, as he points out, that he only operates on those cases in which he, after careful examination of the patient under narcosis, is quite sure he can remove the whole of the diseased tissue; he says wherever the removal of all diseased tissue is impossible, vaginal hysterectomy is not indicated; and if recurrence takes place soon after it has been performed, it only goes to show that cancerous foci have been left behind.

He then goes on to describe his method of operating, which is based upon the importance of absolute asepsis and cleanliness. To obtain this he invariably subjects his patients to examination under narcosis, and at the same time thoroughly cures the uterine cavity in corporeal cancer, or

¹ Post, in *American Journal of Obstetrics* (Nov., 1887), in 700 cases of vaginal hysterectomy he had collected, asserts that the mortality after the operation is 24 per cent.

² *American Journal of Obst.*, vol. 24, p. 796.

removes the soft sloughy tissue with the sharp spoon or scissors in cases of cervical epithelioma.

The cautery is then freely applied, and for about a week or so vaginal douches are given ; sometimes tannin and iodoform powder is applied until a clean surface is obtained. Directly before the secondary operation he thoroughly scrubs the vagina with mollin containing 10 per cent. of creolin by means of a brush. He then proceeds to remove the uterus. He further lays great stress on the treatment of the stump, and prefers the ligature to the clamp. The stump is to be inverted towards the vagina, and the peritoneal wound carefully packed with iodoform gauze, which may safely be left *in situ* for eight days.

Dr. Martin (Berlin)¹ at the International Congress pertinently remarked that of 214 patients operated on successfully by Leopold Schroeder, Fritsch and himself, only 5 were living at the end of four years. So far as the radical cure of cancer of the cervix by extirpation of the entire organ, he stated that 100 women with cancer will live a greater aggregate of years, if left alone, than if subjected to hysterectomy ; to this doctrine Dr. Coe agreed.

We will now consider the class of cases of cancer which are suitable for this operation ; this can be summed up in a few words. Vaginal hysterectomy may be performed in those cases in which, when seen early, the disease is found to be limited to the external os or the cervical portion of the uterus ; if the vaginal walls are only slightly implicated this would not contra-indicate the operation. The uterus in such cases is freely movable and readily drawn down to the vulva. Such cases, in my opinion, are suitable also for the high operation. If I can show that as good, if not better, results can be obtained by the minor operation as are claimed for the major operation, I think I shall have proved my case.

First, then, as to the immediate risks of the high operation to the patient—they may be summed up as being limited to

¹ "Report of International Medical Congress, Obstetric branch," 1890.

hæmorrhage and sepsis. With respect to hæmorrhage, I have seen cases in which very smart bleeding has occurred during the performance of the operation; this can usually be readily controlled by passing a ligature round the uterine arteries, or by the free application of the cautery.

In some cases secondary hæmorrhage has caused trouble, but in such the bleeding can invariably be arrested by plugging the vagina.

From the second danger, sepsis, I have lost one patient, or rather from pelvic cellulitis, which no doubt was the result of sepsis. To avoid this, care must be taken to plug the cavity created by the removal of the diseased cervix with iodoform or mercuric gauze, and not remove it for the space of three or four days unless the temperature warns you to remove it earlier. The vagina should be constantly kept syringed out through a full-sized Fergusson's speculum twice or three times a day with some antiseptic solution. With regard to the method of performing supra-vaginal amputation, there are two or three different plans advocated by different surgeons who practise this operation, some advocating the use of the galvano-cautery, while others prefer the knife or scissors.

Dr. Baker¹ reports that in two series of cases, the first covering a period of five years, ending 1882, he had operated on 12 cases of cancer of the uterus by the high operation, and in the seven subsequent years he had operated on 16 cases by the same operation. Of the first series 50 per cent. remained well at the end of twelve years. In one case he had to re-open the cervix for the escape of retained menstrual blood. In the second series operated on from 1882 to 1889—in all 16 cases—he had no death from the operation, and in 10 cases no recurrence of the disease; 1 case was well at the end of seven years, 3 at the end of six years, 3 at the end of three years, and 1 at the end of two years; 53 per cent. were well at the time of his reading the paper, the remainder had died of recurrent disease. These operations

¹ *American Journal of Obstetrics*, vol. xxiv., p. 1224.

were done by the removal of the diseased tissue with scissors or the scalpel, the cautery being applied to the raw surface.

Dr. Reamy,¹ of Cincinnati, in reporting a number of cases, also strongly advocated the use of scissors or scalpel. He was in the habit of closing the wound in the vagina with sutures, and so obtaining primary union.

In our own country Dr. John Williams² also strongly advocated the removing a conical piece of the uterus with scissors beyond the cancerous tissue.

Dr. John Byrne³ advocates the high operation being performed by the galvano-cautery. He says there are only two surgical measures worthy of mention to choose between at the present day: these are, first, the high amputation or excision, as the case may be, by galvano-cautery, not only of all the diseased parts, but as much more and beyond the supposed danger-line as can be safely taken away, the removal to be followed by a thorough *dry-roasting* of all exposed surfaces; or secondly, vaginal hysterectomy, with the more attractive surgical glamour and ghastly records or lives shortened and often sacrificed on the altar of what now-a-days is called progressive gynæcology.

Dr. Byrne's statistics certainly are most brilliant; in nearly 400 cases he has not had a single death due to operation. Periods of exemption from the disease are reported, in 40 out of 63 of cancer of the *portio vaginalis*, 23 having strayed away, ranging from two to twenty-two years, being an average for each case of over nine years. Of 81 cases involving the entire cervix, 31 were lost sight of, 10 relapsed within two years, 5 had no recurrence for two years, 11 for three years, 6 for four years, 8 for five years, 6 for seven years, 2 for eleven years, 1 for thirteen years, and 1 for seventeen years; so of the 50 cases of this class, whose histories could

¹ *Trans. American Gynecological Society*, vol. xiii.

² Harveian Lectures, *Lancet*, vol. i., p. 6, *et seq.*

³ *Brooklyn Medical Journal*, vol. vi., p. 744.

be followed up, there was an average period of exemption for each of nearly six years.

In this country, Dr. Lewers¹ only a few weeks since reported at the Royal Medico-Chirurgical Society, the results of 19 cases in which he had operated by the cautery with no deaths; 6 of these had been operated on over two years, and were reported as being free from recurrence. At this Society last session² I reported 24 cases in which I had performed the high operation for cancer with only one death; of these 15 were free from the disease at periods varying from one to three years, and have enjoyed perfect health.³

I have now placed as clearly as the time at my disposal will permit the results of these two operations. By comparing these results I hope to come to some conclusion as to which is the operation to be recommended in the future. In doing this I propose to compare (1) the dangers coincident to the two operations; (2) the immediate mortality after the operation; (3) the periods of freedom from recurrence; (4) general results.

(1) Among the dangers, as I have pointed out in vaginal hysterectomy, quite a number of patients have succumbed to intestinal obstruction, due to some portion of the intestine becoming adherent to the edges of the vaginal wound. Dr. Krug claims that if better attention be paid to the stump this danger may be averted; be it so, yet at present it is a danger which all surgeons must be alive to. Even Dr. Krug nearly lost one patient by this cause, and it was only by his timely intervention in examining the vaginal wound that he found a knuckle of intestine protruding through the wound. He broke down the adhesions with his finger, and

¹ *Lancet*, vol. i., 1893.

² JOURNAL OF THE BRITISH GYNÆCOLOGICAL SOCIETY, 1892.

³ Gusserow gives the mortality after supra-vaginal amputation at 9.09 per cent. when the knife is used, and 7.75 after galvano cautery. This would appear, from the reports I have already referred to, to be far above what may be expected, and if suitable cases are selected I am sure the mortality will not exceed 4 or 5 per cent.

pushed the intestine back, introduced a plug of iodoform gauze, and saved his patient. Should symptoms of intestinal obstruction appear, then, after this operation, no time must be lost in endeavouring to remove the cause.

This danger can never be feared after supra-vaginal amputation, as the only portion of the peritoneum which is at all likely to be opened is Douglas's pouch, the peritoneal edges of which become glued together, and the opening securely closed within a few hours. The danger of ligaturing or dividing the ureters is a very serious one in the operation of total extirpation, as should the disease extend laterally, or the tissues be thickened by inflammatory mischief, it is impossible to recognise the different structures which present themselves, and it is obvious that in passing a needle through these tissues or applying pressure forceps, the ureter may very easily be included. This can readily be understood when the intimate relations of the ureter and uterine artery are remembered. This is a strong argument against performing vaginal hysterectomy when the disease is found to extend laterally, or presumably encroach on the broad ligaments. In cases of supra-vaginal amputation this danger can never present itself. Vesico-vaginal fistulæ are by no means uncommon after vaginal hysterectomy, especially when the disease implicates the anterior portion of the neck of the uterus; in such cases inflammatory thickening takes place in the cellular tissue between the bladder and uterus, and it can be readily understood how, in such cases, the bladder may be torn. In cases suitable for the high operation this danger can rarely, if ever, exist. Peritonitis should rarely be anticipated after either operation, if the vagina has been rendered thoroughly aseptic either after the one operation or the other. This misfortune seems to be much more likely to follow vaginal hysterectomy when the broad ligaments are clamped than when the ligature is used. Hæmorrhages, both primary and secondary, are liable to cause trouble after both operations, perhaps even more so after the high operation, as by the traction which is exercised dur-

ing the removal of the diseased tissues the vessels become temporarily closed, and at the time no bleeding points present themselves. When, however, the remaining portion of the uterus is returned, and the pressure relieved, bleeding may take place. This accident, no doubt, would be less likely to follow if the cervix is removed by the galvano-cautery.

The immediate mortality after the operation can only be obtained from the statistics which have been published. Dr. Byrne, who has been at much trouble to do this, has collected 1,273 cases of vaginal hysterectomy, which have been reported, and has divided them into different classes according to locality, thus :—

Europeans.		Operators.		Operations.		Deaths.		Per cent.
Continental ...	...	14	...	944	...	137	...	14.5
British ...	...	8	...	74	...	15	...	20
United States	...	16	...	255	...	34	...	13
Total		38		1273		186		14.6

We may, then, safely place the immediate mortality, after total extirpation as hitherto practised, at about 15 per cent. Now if we compare these figures with the results after supra-vaginal amputation, we shall find the result is very much in favour of the latter operation.

Dr. Byrne tells us that in 400 cases in which he had performed the high operation by galvano-cautery he had no death. Dr. Lewers, in 19 cases by the same method, records no death. Dr. Baker, in a series of 28 high operations, had no death. In 24 cases which I have reported I had only one death. The immediate risk then from this operation is practically *nil*. The length of time that the patient remains free from recurrence would appear to depend entirely upon degree. This is well exemplified by Drs. Terrier, Hartman and Reed. According to the observations of these physicians, cases in which the disease has been recognised quite early are practically cured by either operation, but seeing the dangers which beset the major operation, and which are absent in the minor, surely it would be wiser to practise the latter.

It only remains for me to make a few remarks as to the choice of cases, and in this perhaps I shall not be far wrong in saying if surgeons would operate only upon those cases which are seen early, and in which the disease is limited to the vaginal portion of the uterus or to the cervix and cervical canal, the uterus being freely movable and the disease not extending laterally along the broad ligaments, or the cellular tissue between the peritoneum and the fornix—in such cases no doubt the results would be almost as good by adopting the one operation as the other, so far as the immediate mortality and chances of recurrence of the disease are concerned; but taking into consideration the dangers and complications which may follow the major operation of removing the whole organ, and destroying the roof of the vagina, I cannot but think that supra-vaginal amputation of the disease will not only maintain its high position, but that many of those surgeons who are at present opposed to it will gradually become converts, and only adopt the total extirpation of the entire organ in those cases in which the disease is situated in the body of the uterus.

Gentlemen, I trust I have not wearied you, but in examining into this subject I have endeavoured to the best of my ability to place before you fairly and dispassionately the results obtained by surgeons of all shades of opinion, trusting that we may profit by their experience, and in the future be able to bring the results of such experience to so bear upon our practice that the results of the operative treatment of cancer of the uterus may occupy such a position in the annals of surgery and gynæcology as may prove a triumph of our art, and a lasting benefit to thousands of poor suffering women who may seek our aid.

Dr. ROUTH proposed, and Dr. BANTOCK seconded, a vote of thanks to the President for his valuable and instructive address. This was accorded by acclamation, and briefly acknowledged by the President.

The Society then adjourned.

THE BRITISH GYNÆCOLOGICAL SOCIETY.

THURSDAY, MARCH 9, 1893.

F. BOWREMAN JESSETT, F.R.C.S., PRESIDENT, IN THE CHAIR.

PRESENT : 26 Fellows and Visitors.

E. A. Barrett, M.B., C.M.Melbourne ; A. E. Bridger, M.D., F.R.C.S.Edin. ; W. Findlay, M.B., C.M.Aber. ; J. Furneaux Jordan, M.B., F.R.C.S. ; J. M. Keating, M.D. ; D. Lehane, M.D., Ch.M., L.M.Dublin ; were proposed for election.

Drs. Coleman, Swanton and Osborne were elected Fellows of the Society.

Exhibition of Specimens.

By GEORGE GRANVILLE BANTOCK, M.D., F.R.C.S.Eng.

1. The first specimen to which I desire to draw attention is one of the so-called soft fibroids of the uterus, which I obtained from a widow, aged 42, the mother of three children. The tumour filled the pelvis, jamming the cervix and apparently the body of the uterus against the right side ; below, it descended as low as the level of the os uteri, and above, it extended upwards to midway between the pubes and umbilicus. It was so elastic as to induce me to regard it as a multilocular cyst of the left broad ligament. This impression was rather strengthened by the fact that menstruation was rather scanty, and had never been excessive. I had not used the sound, and had forgotten the fact mentioned to me by Dr. Heywood Smith—to whom I am indebted for the case—that the uterine cavity was considerably enlarged. I was influenced by the physical signs and the one-sided position of the tumour.

On exposing the tumour, its appearance at once denoted its uterine origin, together with the relations of the uterine

cornua. As it was impossible to lift the mass out of the pelvis, or to throw an elastic ligature around the base of the tumour, I first secured the ovarian vessels on each side by a ligature transfixing the broad ligament as close as possible to the side of the uterus on the right side, with the view of catching the uterine artery. I then made an incision in the line of the abdominal wound, through the uterine tissues until I came upon the tumour, which I proceeded to enucleate as rapidly as possible. Having set it free with the exception of a small extent where it apparently was more intimately connected with the uterine body on its left side, I forcibly lifted it up and delivered it, bringing into view the connection with the uterus, and partially everting that portion of the uterus. The remaining connection required the use of the knife, and in the process of division the enlarged uterine cavity was extensively opened. I now threw an elastic ligature around the uterine body in its lower segment, enucleated the uterus from its peritoneal envelope as low down as the level of the elastic ligature. The forcible delivery of the tumour while still partially connected with the uterus drew up the cervix well behind the pubes, and I was able to apply the *serre-nœud* and a supporting pin at the level of the abdominal surface without any undue strain. In this case it was unnecessary to use the lateral double sutures to prevent retraction of the envelope; the stump was trimmed and packed around with iodoform gauze, and the abdominal wound closed in my usual way.

The tumour weighed three pounds, and you will see that it presents all the naked-eye appearances of the soft fibroid. The operation was performed on January 25th, and occupied about an hour and a quarter.

Two days after the right parotid swelled up very rapidly, but there was scarcely any constitutional disturbance, and within a week all trace of the swelling had disappeared. On the fifth day she complained of pain in the left calf, and the leg became œdematous. The application of a bandage at once arrested the swelling and relieved the pain, and

finally the trouble disappeared, and the patient is now quite convalescent.

2. I have here another example of the same form of tumour occurring in a woman aged 56, who had been a widow for twenty-three years, without family, and only a doubtful history of an early miscarriage twenty-four years ago. Menstruation ceased at 52, and had always been scanty. She had been aware of a tumour for three years, but it had grown rapidly within the last six months. About Christmas last the legs began to swell, and when admitted to the Samaritan Free Hospital the œdema was very great. In the abdomen the tumour presented an ovoid shape, and reached beyond the umbilicus. *Per vaginam*, the cervix was entirely obliterated by the descending mass, in the centre of which the os could be distinguished as a small hole as large as a threepenny piece. The tumour filled the pelvis. The resulting pressure was evidently the cause of the œdema of the lower extremities, and presented formidable difficulties for its removal by abdominal section.

On exposing the mass it was at once seen that the tumour had carried the fundus before it, so that it had somewhat the form—only too elongated—of an impregnated uterus. The first step was to secure the broad ligament on each side. The next was to cut through the peritoneum all round, a little below the level of the cornua, including the ovarian vessels, dividing the tissues until I came down upon the tumour. This happened on the posterior aspect, and I at once proceeded to enucleate the mass. When this was accomplished, with the exception of a more than usually resisting portion near the lower end of the ovoid mass, and on its inner or right aspect, I fixed a volsella in it, and using all the force I could exert, succeeded in delivering the tumour, and at the same time everting the portion of the uterus with which it still retained connection. The whole mass and the uterus itself were now well out of the pelvis, and I at once threw an elastic ligature around the neck, and having thus effectually stopped all further bleeding, completed the separation with

the knife, exposing the uterine cavity in the process. There were now evident two cavities separated by a thin membrane, which on examination proved to be the uterine mucous membrane. These two cavities extended below the level of the constricting ligature; one was formed by the lower end of the bed of the tumour, and the other proved to be the uterine and cervical canal, by passing a large probe into the vagina. It will be evident that I could not leave the cavity formed by the bed of the tumour, and that before applying a *serre-nœud* or elastic ligature it was necessary to obliterate it. The only feasible way that presented itself to me was to enucleate the uterine body, in the manner I have frequently described, to a point below this cavity. This was accordingly done, and I applied an elastic ligature around the enucleated uterine tissues, and cut away the redundant mass to within half an inch of the elastic ligature. I then passed a stout thread through the stump by means of which to prevent the sinking of the latter, tying the two ends over a stout pin placed across the line of the abdominal wound. This afforded such good support that I was able to dispense with the lateral sutures, which I generally employ for the purpose of preventing retraction of the peritoneal envelope. The left ovary, behind which the ligature had been applied to the broad ligament, was now cut away, along with the Fallopian tube. Turning to the right side, and after cutting away the ovary, I was surprised by the appearance of a small cystic body, and on putting my hand into the pelvis I brought up this beautiful and unique specimen of hydro-salpinx. On careful examination it was seen that the tube had been completely severed—probably by a band of adhesion crossing it—and just about this point the first ligature had been applied. After the application of a ligature, and the removal of this specimen, I found about an inch of the inner end of the tube still attached. This portion was also removed and showed an earlier stage of the same process, for it was nearly severed, but not dilated. The operation was now terminated by the closure of the abdominal wound in the usual way, while the

cavity was packed around the stump with iodoform gauze. The tumour weighed four and a-half pounds.

The progress of the case has been all that could be desired; there has been no constitutional disturbance, the highest temperature registered being only ninety-nine, and for the first week the dressings were left undisturbed.

I have been thus particular in describing these two operations because I wish to draw your attention to a paper which was read at the last meeting of the British Medical Association (at Nottingham), and which you will find published in the number of the Journal of the Association for Feb. 11th of this year. I direct your attention to only one sentence of that address—a sentence which the author thought quite sufficient to devote to this operation. The sentence reads as follows: "I shall not occupy your time with any description of the method by complete enucleation and suturing of large (*sic*) flaps of peritoneal capsule in the abdominal wound, for I can see nothing to recommend it, and it is, so far as I have seen it performed, a clumsy and needlessly bloody and dangerous proceeding." This is the judgment of a man who, according to his own showing, has never performed the operation, and evidently without any idea of the kind of cases for which it is reserved. If the author of this paper were under the impression that it was intended to supersede other methods of operation which have stood the test of experience, I should agree with him. But he cannot plead ignorance in this direction. I should like to know how he would treat such cases as these two, in which it was impracticable to apply an elastic ligature until the tumour had been first removed, and in which the description of the one operation might be taken as that of the other in the essential details. I presume his method of treatment would be to let such cases severely alone. If that be so, then he has no right to compare his results with those of another who does not select the favourable cases for operation, and does not reject the unfavourable ones. I believe there are several gentlemen present who have seen me perform this operation, and that

they will agree with me when I say that the proceeding is not "a clumsy and needlessly bloody and dangerous" one. I would point out that the operation has been devised with the view, firstly, of lessening the strain on the broad ligaments in those cases in which it might be possible to include the peritoneum in the loop of the *serre-nœud* or elastic ligature, and thereby reducing the risk of extension of sloughing into the peritoneal cavity; secondly, of lessening the amount of tissue included in the constricting ring, thereby diminishing the amount of sloughing tissue to be subsequently dealt with; and thirdly, of providing a mode of safe extra-peritoneal treatment in those cases in which the tumour involves the lower segment of the body of the uterus, and even the cervix, in which also it is impossible to elevate the cervix to the level of the parietes in any other way, or in which, while the stump is necessarily one or two inches below the level of the parietes, it yet can be secured without risk of retraction, in a sloughing state, into the peritoneal cavity, and is kept entirely extra-peritoneal.

3. I have another specimen which is of great interest both from a pathological and clinical standpoint. Pathologically, it is a fibroid of the uterus which has undergone cystiform degeneration, and is evidently malignant. The disease had already burst through the peritoneal envelope on its upper and posterior aspect on the left side, by an opening about an inch in diameter, and filled with a sprouting mass which yielded a considerable amount of black blood in the process of delivery.

This tumour was removed from a married woman, aged 53, on the 1st inst., and presented many features of interest. For its delivery an incision of about twelve inches was required. The broad ligaments, which were very tense, were first secured by two ligatures on each side, and the large vessels were divided between; then the peritoneal envelope was incised all round the mass and enucleation proceeded with. It was easy enough to preserve intact the peritoneal envelope both on the front and sides, but posteriorly it was

impossible. On the left side, posteriorly, the sigmoid flexure was drawn up so high that it was impossible to apply an elastic ligature, and I had to guard against excessive bleeding by a liberal use of pressure forceps, and rapid action. It was, however, so far fortunate that the globular form of the tumour had raised the cervix and floor of the pelvis well up to the level of the brim. In completing the separation of the lowest portion of the tumour I came upon a pocket capable of admitting my forefinger running into Douglas' pouch, and containing some of the same sprouting tissue as was seen in the opening already mentioned. This was well behind the uterine tissue; was easily opened up and exposed, with the view of removing the diseased tissue as thoroughly as possible. There remained in front some hard, firm tissue, evidently uterine, but at first the cavity could not be discerned. Separation from the bladder in front was further proceeded with, but the finger of an assistant failed to find the os, although it was evident that there was only a thin partition between the two fingers. It was necessary under the circumstances to find a way into the vagina, and after a further careful search I discovered the canal, through which I passed a large probe into the vagina. I now slit the cervix down on the right side into the vagina, making an opening into that passage capable of allowing two of my fingers to pass through. I should have liked to remove the whole of the cervix, but on the posterior aspect the disturbance of the parts by the burrowing of the disease made me fear that I might open the rectum. I, therefore, applied a chain of ligatures as low down on the cervix as possible, and then cut away all redundant tissue. The cervical tissues appeared to be quite free from disease. When all bleeding points had been secured I carried the ends of the ligatures into the vagina and out through the vulva. I now shut off the raw surface from the peritoneal cavity by a continuous suture crossing the pelvis from side to side, inverting the edges so as to bring peritoneum to peritoneum. After the sutures had been applied to the abdominal wound, and the greater number tied, the peritoneal cavity was well

flushed, a short drainage tube was inserted, and the remainder of the wound closed. A strip of iodoform gauze was passed into the vagina and the patient conveyed to bed. She had stood the operation well, though it lasted over two hours. The tumour weighed about twelve and three-quarter pounds.

I may add this afternoon the temperature is normal, and that on the whole there has not been any constitutional disturbance; yet I cannot get away from the feeling that the ultimate result must be unfortunate.

In the course of the operation I removed two small growths, one as large as a pigeon's egg, almost involving the appendix vermiformis. There is still a small mass in the vagina on the left anterior wall, apparently superficial, and of the size and shape of half a walnut.

Dr. EDIS and the PRESIDENT briefly commented on the cases.

"Hæmorrhage from the Uterus." By THOMAS SAVAGE, M.D., M.R.C.P., F.R.C.S., Professor of Gynæcology in Mason College and Surgeon to the Hospital for Women, Birmingham.

Mr. PRESIDENT AND GENTLEMEN,—The physician, the surgeon, and the general practitioner is each at some time in his practice more or less interested in the subject of hæmorrhage from the uterus, the latter most frequently so. It is a curious anomaly that, up to a few years back, this and many other points in gynæcology, while forming the main parts of a general practitioner's life work, were yet among those upon which he received the least instruction during his student's curriculum.

In the following remarks views are expressed and practice advised, which will in all probability give rise to a difference of opinion, and therefore it is hoped to a lengthened discussion. It would be manifestly impossible within the limits of a short paper to do more than treat briefly of a few of the conditions which give rise to hæmorrhage. The remarks

cannot in any sense be considered as exhaustive, either in regard to the causes of hæmorrhage or to the methods of treatment. Doubtless this deficiency will be made up in discussion afterwards.

It is proposed to divide the cases into two classes:—(1) those in which the hæmorrhage is associated directly with some condition of the uterus itself, and (2) those in which the hæmorrhage is associated with some condition outside the uterus.

(1) *Causes directly associated with the uterus itself.*—There are several conditions of the uterus which have as a common cause hæmorrhage, and to which various names have been applied, *e.g.*, chronic metritis, chronic endometritis, fungous endometritis, and subinvolution, and it would doubtless be not unfrequently difficult, if not impossible, to differentiate one from the other. The local treatment in such cases would resolve itself into the application to the interior of the uterus of one or other of the following, *viz.*, curetting, the positive or acid pole of the battery, thermo or actual cautery, or escharotics, of a mild nature as carbolic acid, or of a stronger such as fuming nitric acid. Many practitioners prefer curetting, an operation of some importance and one which usually requires antecedent dilatation of the cervical canal, and consequently the patient is confined to bed, and laid up as an invalid for a more or less lengthened period. The application of the liquid escharotics has been frequently attended with results equal, if not superior, to any others. If the case is of recent date and not very severe, the use of pure carbolic acid on a Playfair's probe, as recommended by Dr. W. S. Playfair himself twenty years ago, will suffice to cure. If the case is more chronic or more severe, a similar application of nitric acid may be required, as recommended by Dr. Lombe Atthill, of Dublin. This to my mind is one of the most useful and satisfactory applications we possess, and one not nearly sufficiently often used. It may be used in the consulting or out-patient room, and the patient at once return home.

I suppose there are no cases which are more annoying to the general practitioner than the menorrhagia which is frequently seen in association with the climacteric period. After the practitioner has given good advice in regard to diet, aperients, rest, exercise, medicines, &c., the flow will continue to be excessive for many months, or even a few years, and the patient is liable to drift away to seek other advice. When the cause is due to the presence of a small myoma in the uterine wall, as is so common, or to, what I believe as frequently exists, a general myomatous development of the uterus, the menopause is likely to be considerably delayed and the patient may go on to 50 or even later before it occurs, leading meanwhile a miserable worn-out existence. To a patient in easy circumstances, who can command rest and remedies, this period may be borne, tedious and wearing though it be, and she may look forward hopefully to restored health. But to a poor woman having her living to get the case may be widely different, and I have in a few cases advised and practised the removal of the uterine appendages as a means of speedy relief and cure. I believe with a careful consideration of all the circumstances of the individual and her surroundings this practice is justifiable; but its action is a very limited one. Take a patient aged about 40 or 42 with climacteric menorrhagia, she will probably not have the menopause much before 48 or 50. If during that period her life is a burden to her, preventing her from attending to either the duties or the pleasures of her position, I think it is only kind and right to advise her to run the very slight risk of the operation and be cured at once rather than go through what she would otherwise do. At all events I think it is right to place the matter before her and let her have the option.

Incomplete Abortion.—More cases of hæmorrhage occur in connection with the results of pregnancy than with any other condition, and I suppose more errors in diagnosis are made. Probably no practitioner has arrived at middle age without having at some time overlooked a uterus containing the products of conception. It has been quaintly said that the

medical practitioner should look upon every adult female patient as pregnant until it has been proved that she is not so. There is no doubt if this were more his mental attitude fewer mistakes would be made. Undiagnosed imperfect abortion is a condition of things that very frequently comes before the consultant, and, perhaps, because of this I would insist upon the necessity of first of all excluding pregnancy as a possible cause of the hæmorrhage in every case where it can be done. Although it is, undoubtedly, the fact that hospital patients far outnumber private ones, yet I feel certain that the proportion is also greater relatively of hospital over private patients, who require aid from incomplete abortion. To the general practitioner these cases are a source of much trouble and often greater anxiety. When the hæmorrhage goes on, even though not severe, for a long time, the patient and her friends become dissatisfied, medicine is of little avail, and the doctor is in despair. If the exact condition of things has been diagnosed he knows that nothing short of emptying the uterus is any good, and if it has not been diagnosed hopes have been raised which have not been, and will not be, realised. If the case is not a severe one, I mean if there is no urgency from hæmorrhage and no septicæmia, the more tedious process of dilatation, even with its diminished risks of to-day, need not always be practised. Among out-patients, and also in some private cases, we may pass a uterine forceps into the cavity and endeavour to bring away as much of the ovum tissue as possible and then swab out the interior of the uterus with carbolic acid. This plan I have so frequently found to be effectual, that I nearly always adopt it in the first instance, and whenever called to such cases I look on the forceps as the first thing to use. Of course, due regard must be had to cleanliness of hands, instruments and vagina, so that the surgeon's interference, shall not be an element of danger rather than of benefit. From a diagnostic point of view it usually clears up the case, for although the previous history, the foul discharge, and the enlarged patent uterus, taken together, are very significant, yet to bring away a small

portion of ovum tissue makes assurance doubly sure. The dull wire curette may do very well, but it is not so efficient as the forceps, by which when it does succeed, as is generally the case, the delay, difficulties and dangers of dilatation are avoided.

For digital exploration, or cheiroscope of the uterus, dilatation has to be invoked, and the best means to induce this has, I believe, yet to be found. There is something to be said in favour of each of the three usually adopted following methods. (1) Dilatation by means of tents is generally effective, but the use of tents is attended by the dangers of blood poisoning. If tents could be made aseptic, or, at all events, if their present dangerous absorbent properties could be overcome, I believe they would return to more frequent use; (2) The elastic pressure dilatation is tedious, painful, and often uncertain, and requires frequent supervision by the attendant, or a skilled nurse or assistant; (3) Hegar's dilators are not quite satisfactory. They must nearly always involve some amount of tearing, and consequent raw surface.

The presence of a hydatidiform mole is included under this heading.

Cancer.—When we examine a patient, and find the case is one of malignant disease, are we not too much in the habit of adopting a *laissez-faire* attitude, and of thinking that while we cannot cure we also cannot do much to relieve? If we control the hæmorrhage, to however small an extent, we tend thereby to husband strength, to give comfort, and to prolong life; and a judicious application of styptics to the diseased mass, whether it be of a fungating or an excavating character, is an advantage. The removal from time to time, as required or possible, of a so-called "cauliflower" excrescence, with subsequent application of perchloride of iron or cautery to the base is productive of the greatest relief, and, I am sure, tends to prolong life many months, without being attended with the dread and pain which accompany so many operations; and it may sometimes be repeated from time to time, as the disease or the patient's condition permit. Then for

the excavating variety, with its rigid, submucous hardness all around, the use of the cautery and a plug soaked in perchloride of iron will arrest further bleeding, often for many weeks. One must not forget that meddling and too frequent interference may increase bleeding, and so do harm rather than good.

The question of the radical operation by vaginal hysterectomy, or supra-vaginal amputation of the cervix, when the case is a suitable one, is too large a subject to be discussed at length here. It would open such a point as to whether a capital operation, with all its risks, and which can be only palliative for a comparatively short period, should be done for a disease which in time is sure to kill. To my mind this has been settled pretty decisively by the brilliant results which have been obtained by our President, by Professor Sinclair and others, both here and on the continent.

Myoma.—Hæmorrhage arising from the presence of myoma opens up a very wide field for discussion and difference of opinion. If the tumour assumes the polypus character, manifestly its removal is called for. For the bleeding from the submucous variety I will briefly name only three classes of remedies. (1) General remedies, *e.g.*, systematic rest, and a carefully regulated dietary, especially in the direction of limitation of the amount of animal food. (2) Special remedies, as ergot, hamamelis, hydrastis, digitalis, and bromide of potassium, &c., and (3) local remedies, *e.g.*, perchloride of iron applied to the surface, or other styptic or cauterising agents, of which mention may be made of nitric acid, actual cautery, electricity by the positive and acid pole, which has a distinctly styptic effect. The use of the negative pole, which is alkaline and destructive, is named only to be condemned. The question whether the internal medicines should be taken at the time of the flow, or during the intermenstrual period, or even during the whole time, is one about which there is a considerable difference of opinion, and with our present knowledge of the action of drugs, which are proverbially somewhat uncertain, one not so easy to determine as might at first sight appear.

The use of electrolysis for the complete disappearance of myoma appears more like a dream of the past, and, I take it, is settling down into oblivion. Were it otherwise, we should hear on all hands of the large tumours which have disappeared, and of the resulting cures which have been obtained. If all the above means fail, the tumour growing, and the patient going progressively down hill, operative measures are our only resort. This is so in spite of the fact that the patient may be very near the natural age of the menopause, because in nearly all such cases we find the cessation of menstruation is so considerably delayed that it may not be reasonable to expect that we could tide our patient over the extra prolonged period—a period often of as much as four to five years. When this state of things occurs, it seems now quite established that the best operation, when it can be performed, is to remove the uterine appendages. If the tumour is small, the difficulty is small also, or even non-existent. If the tumour is large, it may be impossible to even reach the ovaries, much less to completely remove them, on account of the position which they have come to occupy in relation to the large mass of new growth. They may be completely buried deep down in the pelvis behind the uterus, through the myoma having developed largely in front, or laterally, widening out the broad ligaments. On the other hand, it often occurs that with a very large tumour the ovaries are really very accessible, and can be removed without risk and difficulty, and through a very short opening. The great advantages of this operation, when it has been efficiently performed, are that it is so certain in its results, and that these results are obtained with so little risk to life.

As regards hysterectomy it is remarkable to notice how much disfavour has attended it of late years, compared with a few years ago, and I take it that it is now much less frequently performed. Doubtless, this is on account of the greatly increased risk to which the patient is submitted, as compared with removal of the appendages, and also of the fact that

abdominal surgeons are more satisfied with the results of the latter operation. In addition to this, perhaps, and I say it without offence, now that their first emotions of joy, enthusiasm and triumph have been sobered down by lapse of time and long-continued successful work, they seem to realise to the full the value of the old aphorism, "*primum est non nocere.*"

Flexions.—To speak of flexions takes one's mind back to what may not inaptly be called the "mechanical" age in gynæcology, when nearly every ache and disturbance of function was ascribed to a mechanical cause, notably, a displacement of the uterus, and suitable or unsuitable local treatment of a mechanical nature was at once pursued. Perhaps to-day the pendulum has swung a little too much the other way and discarded pessaries are languishing in their drawers, dusty from want of use. There is no doubt, however, but that hæmorrhage does occasionally arise solely as a result of the flexion and does require treatment, even though without its presence the flexion itself might not necessitate special notice. A well adjusted pessary is, in such circumstances, usually sufficient; if not, a styptic application to the interior of the uterus would probably be indicated.

(2) *Causes not directly associated with the Uterus.*—*Tumours.* Of extra-uterine causes of hæmorrhage, in the absence of inflammatory symptoms, the presence or absence of a small cystoma or dermoid tumour, must be borne in mind, as these are by no means uncommon; and it goes without saying that, for such, medicines and other expectant treatment can be of no avail.

Ectopic Gestation.—Then with ectopic gestation a hæmorrhage from the uterus is frequent. In the early stages there is, perhaps, nothing more difficult of diagnosis. If we can get a history of a few weeks' antecedent menstrual cessation, followed by some of the symptoms of pregnancy, with a "lump" in the pelvis on one or other side of the uterus, and especially the passing of a decidual cast, we may be led to associate the flooding with ectopic pregnancy. It is the loss

that brings the patient to seek advice. There are instances, though not common, of hæmatocele in the pouch of Douglas quite unconnected with extra-uterine foetation, which have as an accompaniment hæmorrhage from the uterus, sometimes of a very severe character.

No surgical treatment has ever been more brilliant than the present method of dealing with these cases by abdominal section, which has, at the same time, thrown a flood of light upon the pathology of what was, to say the least, a somewhat obscure condition.

Chronic Inflammatory Diseases of the Appendages.—Next to the successes in abdominal surgery there has been, perhaps, no greater advance made in gynæcology in recent years than in the diagnosis and treatment of inflammatory diseases of the appendages. The one has led to the other; the latter has been the result or outcome of the former. Hæmorrhage is a frequent accompaniment of these conditions, and when other directly uterine causes of the loss fail to be discovered a more careful examination may reveal a salpingitis, hydro- or pyo-salpinx, or a hæmato-salpinx. Of these inflammatory affections persistent metrorrhagia is more frequently associated as far as my experience and observation go, with pyo-salpinx. If these conditions are not ascertained before active uterine treatment is commenced the case may eventuate in disaster. I am reminded of a patient, years ago, who had an intractable hæmorrhage about her climacteric period; when milder measures failed tents were used and dilatation easily effected. In the exploration, under an anæsthetic, of the uterus, sufficient, though slight, force was used to rupture a pyo-salpinx that could not be felt, or at all events had not been felt, in the examination, which resulted in speedy death, and whose presence could only be determined by a *post-mortem* examination.

The tubo-ovarian cysts, which are the results of inflammatory conditions, are equally and frequently accompanied by uterine bleeding, and these again are also often difficult to diagnose.

Obesity, &c.—In many cases of obesity, constipation, disease of the heart or liver, pelvic stasis may be a consequence and give rise to a blood discharge from the uterus. Suitable remedies will usually give the desired relief for this condition of things, but it is occasionally so intractable as to prove a source of much annoyance and vexation. I would lay great stress on the importance of purgatives, principally saline, and none is more beneficial than the effervescent magnesium sulphate recently introduced into the British pharmacopœia. In this we are reverting to the teachings of our fathers who paid so much attention to the "*primæ viæ*."

As in recent years the methods of gynæcology have been more surgical than medical, and it has become the custom to say to oneself, in a given case, rather what we shall do than what we shall administer, so I doubt not but that practitioners whose medical preponderate over their surgical instincts may object that sufficient importance has not been given to the expectant, conservative and medical aspects of treatment. The apology therefore is that while we rejoice that of late medical therapeutics, though more limited in extent, have become more exact, we rejoice still more at the greatly increased benefits which can be obtained by judicious surgical therapeutics.

Other causes of hæmorrhage will occur to the mind which have not been referred to on the present occasion.

Dr. LEITH NAPIER expressed his indebtedness to Dr. Savage for his comprehensive paper which was, indeed, a *multum in parvo*. Only one of such great experience as Dr. Savage could have condensed such a wide subject into so short a paper. Dr. Napier concurred in the classification of the etiology of hæmorrhage adopted by Dr. Savage. With reference to the use of nitric acid, Dr. Savage had not mentioned his method of using it; did he apply it with a Playfair's probe? Abroad it was customary to inject the acid, but unless the quantity was measured, and the uterus first dilated, he thought it might be a dangerous procedure. Though Dr. Savage was such a skilful operator, he (Dr.

Napier) could not accept his suggestion that climacteric menorrhagia required so heroic a treatment as removal of the ovaries. Referring to the statement in the paper that Hegar's dilators cause tearing of the cervix, he recorded his opinion that if carefully used under anæsthesia there was no danger, but in some cases insufficient dilatation was obtained by them, and the desired result might then be secured by a method not mentioned in the paper though well known, viz., bilateral division of the cervix. In the case of a fibroid tumour, now on the table of the Society, he had adopted this procedure after using Hegar's instruments up to No. 15. He hesitated, in this particular case, to use the forceps required for a larger dilator, and therefore slit up the cervix as far as the internal os, and removed the fibroid polypus by applying the ecraseur to its base. After washing out the uterus, he stitched up the cuts with chromicised gut. There was no fever, and three weeks after the operation the uterus was normal, and no trace of the stitches could be seen. He quite sympathised with the remarks in the paper on the subject of electrolysis, and thought that an expression of opinion on this subject from Dr. Savage was of much value. There was one cause of hæmorrhage that came under Dr. Savage's second division, and that had not been referred to, viz., renal disease, especially in its association with chronic alcoholism. His experience was that alcoholism was a common cause of hæmorrhage, and more especially so in the richest and poorest classes; the middle classes of the community had either less time or less inclination to indulge so frequently in the habit.

Dr. ROUTH, in expressing his thanks to Dr. Savage, thought that if more papers were written as clearly and tersely as this one they would be better understood and remembered than is sometimes the case. Dr. Routh spoke of the difficulty of diagnosing chronic disease of the appendages, and thought that until we have more definite guides to a correct diagnosis we were not justified in opening the abdomen for the chance of finding a lesion. He remembered that when this subject was before the Society

on a former occasion, a well-known provincial specialist had spoken of the great ease with which these affections could be recognised; he could only say that they in London did not find it so. Often such conditions had been unrecognised by several experts, and found for the first time at a *post-mortem*. Conversely, also, after the appendages had been pronounced with much dogmatic assertion to be diseased, abdominal section had shown them to be quite healthy, and when removed the patient had remained six years after in just as bad a condition. He thought, however, that there was one means of diagnosing inflammatory from non-inflammatory conditions, viz., the electric current. He drew an analogy from the distinction between gastritis and gastralgia, saying that in an inflammatory condition electricity increased the tenderness. In neuralgic conditions patients who had had excessive tenderness could, after electrical applications bear much manipulation without flinching. He had seen this put to the test by Apostoli, who first called attention to the fact. He thought that tents were the safest things possible if used with care. He had seen a case where a hole was made in the uterus with a Hegar's dilator, and the patient died; but he had never had any accidents with tents, and this he put down to his practice of making his tents himself, tending them to the shape required, and putting round the tent before using it a thin layer of cotton wool, which was then dipped in 1 in 20 carbolic. As regards removal of appendages, if done at all, he thought the climacteric was the best time, because after that the ovaries were of no further use, but that without operation many of these patients would get well if expectant treatment were adopted. Cutting the cervix should be done with great caution, for though in some cases a good procedure, it might give rise to excessive and dangerous hæmorrhage.

Dr. EDIS was glad to hear Dr. Savage sound the note, though he did not dwell long on it, that medical treatment was of some use in these cases. He thought they had passed through a surgical crisis and that operations were now

somewhat on the wane. This was a good thing, for some patients would not undergo operations, and in many such cases a cure had been obtained by salines and general medical principles. At the climacteric, especially in persons addicted to alcohol, hæmorrhage from the uterus might be a safety valve, and avert more serious troubles, such as apoplexy. In fact, formerly they were advised, in such cases of hæmorrhage, to scarify the cervix and deplete the uterus, often with good results. The onus of proof rests with the practitioner, that the uterus is *not* the organ at fault. He had known the appendages to be removed, hæmorrhage to continue, and then a small polypus to be found. The proper treatment was to dilate and explore the uterus first; and give medical means a fair trial. He agreed with Dr. Napier as to the danger of the application of nitric acid to the interior of the uterus; yet in some cases, especially when applied on Playfair's probe, it was good treatment. Personally, he preferred linimentum iodi and iodized phenol as intra-uterine applications; and from these he had had very good results.

Dr. MACNAUGHTON JONES thanked Dr. Savage for his very valuable paper. He said he had used nitric acid since it was first introduced by Dr. Atthill, and employed it in the way he recommended, viz., first dilating the cervix, and then introducing the acid with a cannula. He should not dream of injecting it into the uterus. He had found it especially useful in subinvolution, and at the time of the menopause. He had used the curette without any bad result in abortions and in fungoid endometritis; in the latter case generally in conjunction with chromic acid, especially when there was a suspicion of malignancy. He had had very good results by this method. In one case, nine years ago, a leading pathologist, after removal of the growth, gave a diagnosis of cancer; with the curette and chromic acid the symptoms subsided, and the patient was now in good health. He had used electrolysis, and with one fatal result, and did not purpose using it again. From tents he had never had ill consequences, though he did not adopt any extraor-

dinary precautions. He thought all that was necessary was to ensure perfect cleanliness, not to leave the tent in too long, and to carefully watch the patient. Tupelo tents had given him excellent results. He agreed that there were cases where the appendages were at fault, and then they must be removed, but he thought that in the majority of cases hæmorrhage depended on the uterus. Retroversion as a cause of hæmorrhage was too often overlooked; replacement and a pessary would then often give a cure. He called attention also to the value of simple dilatation. He entered a protest against the continued applications of the hot douche, and thought that soon the douche-tin would be found in every lady's travelling bag. He believed that in many cases this repeated douching caused a congestive reaction which predisposed to hæmorrhage. He agreed with Dr. Savage as to the value of certain drugs as a means of checking hæmorrhage.

Dr. BANTOCK said that the conciseness of the paper gave so much material for thought as to render discussion difficult. He missed a reference to cases of menorrhagia in early life; a most important condition, and one that by itself might well occupy an evening's discussion. In these cases it was always due to uterine or constitutional condition, and he agreed with Dr. Macnaughton Jones in thinking that hæmorrhage was only barely due to disease of the appendages. The treatment in early life was generally medicinal, and he had found nothing so good as a combination of the sulphates of iron and magnesia. The diet must also be attended to. He did not recommend nitric acid as an escharotic, it was far too dangerous, although with the speculum and the other precautions used by Dr. Atthill, the danger was reduced to a minimum. Escharotics may cause atresia of the os, as in a case recently under his care, where he had to cut down on the canal and dilate. Marion Sims had had the same experience. He had not had occasion to consider the question of removing the appendages at the climacteric, it was a new idea to him, so he would withhold judgment,

though provisionally, the practice did not commend itself to him. With respect to the use of forceps in abortions, it seemed to him more scientific to dilate the cervix first, to avoid groping in the dark. He concurred in the view that Hegar's dilators are unsatisfactory, as causing tearing and requiring too much force. Myomata might be present without causing hæmorrhage, as in the three cases shown this evening. He thought that when operative measures were contra-indicated, it was good practice to give the perchloride of iron with ergot, not only in the intervals of menstruation, but at the periods also, at which time the dose should in fact be increased. Without entering on detailed cases he would mention one in point, where a patient had been advised operation, and objecting, had been put on a course of bromides and iodides, a treatment which he thought tended to aggravate rather than relieve; he ordered her a course of iron and ergot; this was six years ago, and she remained well at the present time. He quite agreed with Dr. Savage's condemnation of electrolysis. In dealing with a multiple fibroid of the uterus, he thought removal of the appendages was generally the proper operation, but it was not always possible, as in a case of fibro-cystic tumour on which he operated, where the right ovary had been pressed down into the pelvis and concealed by the growth, he removed the left ovary, but had to leave the right. This patient married, and in course of time gave birth to a living child. He would say in reference to hysterectomy only this, that he did more hysterectomies, not fewer than formerly, because he could do the operation now, and could not at one time.

Dr. SAVAGE in reply said that he never injected nitric acid into the uterus, he generally applied it on a Playfair's probe, but sometimes with Atthill's cannula.

Dr. MACNAUGHTON JONES here asked Dr. Savage whether he used anything after the application of the acid to prevent subsequent atresia; he would like to say that the use of oil answered this purpose very well.

Dr. SAVAGE said he generally used sodium bicarbonate in

the vagina to counteract excess of acid, but no other application : he had never seen atresia following the use of the acid. With reference to the use of forceps in abortions without previous dilatation, he called attention to the fact that in such cases the os was almost always more or less dilated, so that even when the finger could not be introduced, the forceps could be used with ease. Removal of appendages at the climacteric he thought was specially indicated in poor women, who could not afford to let matters take their course, but such cases were no doubt not frequent. He had hoped Dr. Bantock would have enlarged on the subject of menorrhagia in early life. He had had several cases and found them very difficult to explain, for in three at least nothing abnormal could be detected with the finger in the vagina, all his patients recovered however. Finally, he thought that cases where diagnosis of pyosalpinx and allied conditions was impossible were very rare.

The PRESIDENT (Mr. Jessett), moved that the best thanks of the Society be given to Dr. Savage for his very clear and practical paper. This was carried by acclamation.

The Society then adjourned.

THE BRITISH GYNÆCOLOGICAL SOCIETY.

THURSDAY, APRIL 13, 1893.

F. BOWREMAN JESSETT, F.R.C.S., PRESIDENT, IN THE CHAIR.

PRESENT: 27 Fellows and Visitors.

A. E. Giles, M.D., B.Sc., M.R.C.P.; R. L. Guthrie, M.B., C.M.Edin.; Adolph von Hahn, M.D.München; W. W. Hall, M.D.Edin.; G. C. Stephens, M.D., C.M.Montreal; J. H. Stoyd, L.R.C.P. & S.Edin.; were proposed for election.

Drs. Barrett, Bridger, Findlay, Jordan, Keating, and Lehane were elected Fellows of the Society.

Sarcoma of the Ovary.

Dr. R. T. SMITH showed a specimen of sarcoma of the ovary, constituting an enormous tumour, which almost filled the abdominal cavity, and weighed twenty-eight pounds.

The patient, a single woman, aged 27, was admitted to the Soho Hospital in the summer of 1891, with a history of menorrhagia of two years standing, each period lasting fourteen days. At that time there was no growth to be felt in the pelvic cavity, the diagnosis was adenoid endometritis, and after curetting and the removal of numerous small growths, she was temporarily cured. In July 1892, the patient returned; she had remained well for some months, but now the menorrhagia had recurred, and had become persistent. The abdomen was enlarged by a swelling which reached to the umbilical level. The uterus was found to be drawn up, and behind it was a semi-elastic mass in the pelvis. Temperature 102°. Pulse very quick. The swelling was so unequal in consistence that, conjoined with the fever, the diagnosis seemed to point chiefly to hæmatoma with peri-

tonitis, and abdominal section was performed. The swelling was now discerned to be a tumour, with broad ribbon-like attachments to the intestines and uterus, the semi-elastic portions consisting of rapidly growing mucoid tissue. Removal was utterly impracticable. The patient survived three months, and died emaciated to the last degree, with œdema of the legs and genitals. Temperature remained high throughout. It is noteworthy that during the last three months there was no menstruation.

Post-mortem.—The tumour was found to be a spindle-celled sarcoma growing from the right ovary, and not involving the uterus, which was normal. Vast portions of the tumour were composed of mucoid soft tissue. In the left lung there was a solid growth the size of the fist. There was no ascites.

Replying to questions by the President, Dr. Heywood Smith and Dr. Bantock, Dr. Smith said there was no enlargement of the mesenteric glands; that the tumour was deeply imbedded in the pelvis, and adherent to the viscera by broad and firm attachments. The tumour had arisen and attained its ultimate dimensions in a period of ten months.

Dr. HEYWOOD SMITH read the notes of the following case for Dr. Macnaughton Jones in his unavoidable absence:—

Mrs. D., age 31; first consulted me 1885; suffering from abdominal and pelvic pains, consequent upon most severe attack of general peritonitis, which nearly proved fatal. On and off since she has suffered from obscure abdominal and pelvic pains. For the first few years the pain was confined to the abdomen, and there was difficulty in walking. She married some six years since, and a few years after marriage consulted me for uterine discharge and ovarian pain. I then found severe and extensive erosion of the os and cervix uteri, with endometritis. The left ovary was swollen; the right could not be felt. She was treated by dilatation and the application of nitric acid. This, with other intra-uterine treatment, gradually cured the erosion and endometritis, and I saw very little of her until the end of

1892, when she again came complaining of extreme constant pain on both sides, but especially on the left. Upon examination I found the left ovarian region occupied by a tumour full of fluid. The right side I could not detect any ovarian or tubal fulness. I then advised oöphorectomy. The patient was subsequently seen in consultation with me by Dr. Heywood Smith, who agreed in this opinion. She was operated upon in February, Dr. Heywood Smith kindly affording me his invaluable help under the difficult circumstances of the operation. After the usual incision, it was found that the peritoneum was quite adherent to the intestines, and in endeavouring to open into the peritoneal cavity the bowel was incised. This was carefully closed by interrupted gut sutures, and another opening, where the peritoneum was found non-adherent, was made low down and to the left side. Here a cystic tumour about the size of an orange was found closely adherent to the broad ligament, and firmly bound down in the pelvis. With considerable trouble the adhesions were peeled off, and the cyst, which was full of blood, ultimately removed. At the right side the broad ligament, with the ovary considerably atrophied, was found adherent to the pelvic wall, and at a little distance from it, also adherent, was a small cyst about the size of a hazel nut. It was not thought advisable to interfere with these. A drainage tube was left in. The patient made an uninterrupted recovery, and has continued to do well.

Dr. LEITH NAPIER suggested that the growth might have been associated with the previous application of nitric acid, traumatic salpingitis being set up.

Dr. BANTOCK, though opposed to the use of nitric acid, thought it was not in this case responsible for the cyst. Such blood cysts were not uncommon, the sequence of events being—degeneration of the ovary, destruction of vessels in its substance, and hæmorrhage into it. Such cysts were generally small and adherent.

Dr. HEYWOOD SMITH briefly replied for Dr. Macnaughton Jones.

Intra-peritoneal Myomotomy. By W. J. Sinclair, M.A., M.D. Aberd., M.R.C.P., Professor of Obstetrics and Gynæcology, Owens College and Victoria University; Physician to the Manchester Southern Hospital for Women and Children, and Maternity Hospital.

FROM recent contributions to the medical journals, and to the proceedings of medical societies in this country, we may infer that the various operations which have been resorted to in the treatment of fibromyoma of the uterus are undergoing a rigorous process of analysis and criticism. As these operations are, for the most part, unsatisfactory, we seem to be on the eve of a further advance in the surgery of the uterus. It was not my intention to publish the results of some attempts at improvement on the old operations until I had accumulated a much larger amount of clinical material; but the appearance in the medical journals of some papers founded on comparatively small amounts of clinical work, and proposing what seemed to me defective methods of operation, suggested to me that it might be as well to subject even my somewhat immature matter to the criticism of the gynæcological profession.

When I began several years ago to prepare for publication my very slender material I had not examined in a critical fashion the work of Schröder and his pupils. Now, after a careful perusal of the literature of the intraperitoneal treatment of fibroid tumours, as far as I have been able to gain access to it, I am driven to the conclusion that any operative work, having in view the avoidance of the clamp or elastic ligature, must rank as mere modifications of Schröder's operations. For eight or ten years little was heard of the intraperitoneal method, but comparatively recent results have been published by some of Schröder's contemporaries and pupils which are destined to compel the attention of operative gynæcologists in all countries, and to reopen the whole question of the treatment of fibromyomata of the uterus.

The operation which I have worked out for the radical treatment of certain cases of fibromyoma of the uterus essentially consists in making an abdominal incision, drawing out the uterus with its tumour, and amputating it with the formation of an anterior and posterior flap. Too tender care is not taken to discriminate between uterus and new growth in the formation of the flaps, and special measures must be resorted to in order to control the hæmorrhage, which is the chief source of danger in the operation.

As the title given above indicates, I do not think the terms "retro-" or "sub-"peritoneal, as used by English surgeons, applicable to this method of treating the stump. As the peritoneum itself is an important part of the stump, it is evident that the stump cannot be correctly described as treated behind or under the peritoneum. I, therefore, prefer the term "intraperitoneal," on the analogy of the method, now universally adopted, of dealing with the pedicle in ovariectomy.

In the great majority of cases of comparatively small symmetrical fibromyomata, in which hæmorrhage is an important feature, it is probable that the electrical treatment will continue to suffice. When the gynæcologist, who is possessed of a reasonable amount of knowledge of electricity, fails in such cases, after careful and persevering treatment, probably the next best method is removal of the ovaries with the tubes, the operation being so carried out as to produce considerable interference with the blood-supply to the uterus. The persistence of menstruation and the continued growth of uterine tumours after oöphorectomy probably depend, not upon some mysterious physiological influence of the Fallopian tubes, but upon a purely anatomical point—viz., that the blood-supply by the ovarian vessels has not been sufficiently cut off during operation, so as to produce rapid involution of the body. When the tumour has been allowed to grow large, and especially when it is unsymmetrical because of the development of irregular masses of fibroid tissue, removal of the tubes and ovaries is impracticable, useless, or too dan-

gerous. In a certain small percentage of such cases the question of operative treatment must arise in a more or less urgent form. If the hæmorrhage is excessive, causing blanching, and threatening the life of the patient, or if pressure symptoms are urgent and intolerable, or if symptoms supervene pointing to inflammation or softening of a portion of the tumour mass, the most conservative practitioner must make up his mind on the question of abdominal section.

The ordinary operation, which is the final resort in such cases, offers few attractions to the surgeon. Most of the surgeons who perform it frequently, in the United Kingdom, have, at some time or other in the course of their experience expressed dislike or even "detestation of it." The proceedings involve abdominal section, a large incision being necessary, the dragging forward of the uterus with its mass of tumour, strangulation of the broad ligament and tumour by a piano-wire, or equivalent appliance, passed round some portion, which shows the nearest approach to a neck, if such exists, and cutting off the tumour mass. Whatever may be the details of the method which may be adopted for securing the stump and protecting the peritoneal cavity, two objectionable results are inherent in the operation—first, the sloughing, with more or less of fœtor and pus formation of the strangulated portion; and, second, the existence of a band of tissue from the uterus to the lower angle of the wound—a sort of potential bowel trap for the rest of the patient's life. Some operators also refer to the tension of the uterus under the strangulating wire, and the occasional dragging upon the bowel, with sometimes fatal consequences, either immediate or remote.

My experience of this operation leads me thoroughly to sympathise with the aversion expressed by some surgeons; and I have, in a few cases, tried the modifications proposed from time to time by gynecologists both at home and abroad, such as the elastic ligature, and Zweifel's treatment of the stump; but they are all unsatisfactory.

Case I.—On the 8th of August, 1888, a patient was sent

to me from Rochdale for operation, and she was admitted into the Southern Hospital. She had a very large elastic abdominal tumour, which was supposed to be ovarian. In favour of this diagnosis were certain facts; the tumour had grown rapidly, and in twelve months from the time it was first detected it reached one to two inches above the umbilicus; the tumour was comparatively soft, and quite symmetrical, leaning to the right side; the patient was forty-four years of age, and menstruation was irregular, and had been only once profuse. The uterus was, however, nearly twice the normal length, and moved with the tumour. The diagnosis was sub-peritoneal fibroid of the uterus, and the operation intended was the usual abdominal section, and strangulation by Kœberlé's *serre-nœud*.

Operation, August 16th.—The tumour was brought out through the abdominal wound, and found to be a soft somewhat cystic fibromyoma, attached to the right side of the uterus, and partly in the broad ligament. It was caught with the wire in the usual way, and cut off. The diameter of its attachment to the uterus was found to extend to about six inches, and the uterus itself, quite intact, was rather obtrusively prominent in the wound. It seemed best, on taking in all the points of the situation, to enucleate the remaining portion of the tumour; and this was done by ligaturing the broad ligament below the ovary so as to prevent hæmorrhage, dissecting out the pedicle from the side of the uterus so as to make a deep furrow, and bringing the edges together as in the amputation of a limb. A glass drainage tube was inserted. The tumour weighed, after incisions had been made into several cysts, $8\frac{1}{2}$ lbs. At the first two or three daily dressings there was found to be a fair amount of hæmorrhage into the pelvis, and when this ceased a rubber tube was substituted for the glass one. On the 24th of August the rubber tube was removed. On the 26th at 6 p.m. the temperature was 103.4° , and the pulse was quickening. The tube was therefore re-inserted, and after that gradually shortened. The patient's progress to recovery was then uninterrupted.

Case II.—In September, 1889, J. B., aged 42, was sent to the Southern Hospital by Dr. W. O. Jones, of Bowdon. She was menstruating profusely and had a good deal of pelvic pain. Examined under an anæsthetic she was found to have a tumour the size of a goose's egg in the left cornu of the uterus. The uterus was enlarged and turned to the right. Although I was practising Apostoli's treatment, and was satisfied with the results in my private cases, I did not think this case suitable for the somewhat tedious electric process, and on the 21st of October I enucleated the tumour in much the same way as in the last case. There were numerous small nodules of fibroma in the uterus, and I accordingly took away both ovaries. The patient made a good recovery without the drainage tube troubles met with in the former case.

From dissecting out a portion of the mass formed by uterus and tumour, it is an easy step to the question: Why should we not amputate as much as is necessary in the case of large myomatous growths? So far there had been no occasion to open the uterine canal, and there was abundance of authority, especially German, for the view that such a proceeding would seriously complicate the operation. In the operations involving the opening of the canal, as well as cutting away the tumour, one could see it was considered essential to close up the canal with sutures, or to dissect out the lining, or to roast it with the cautery, or destroy it with escharotics—all proceedings which would weight with details an operation which must be sufficiently complex when reduced to the simplest form. Yet the same gynæcologists appeared to accept the results of investigations by Döderlein and others, which went to prove that the uterine canal, when not rendered septic by interference, contained no pathogenic bacteria. From these and other considerations I resolved that, if opportunity offered, I would amputate the uterine mass, and disregard the uterine canal. If, with a clean vagina, it maintained free communication with any cavity or collection of fluid which might form in the stump, then it would act as a drain.

No opportunity of bringing this plan to the test of experience occurred till the summer of 1891. No case presented itself in which the two essential conditions coincided—that the patient was willing to submit to operation, and that I considered the circumstances justified or called for the *dernier ressort*. If the gynæcologist, who has even a very considerable amount of material, understands something about electricity and gives the suitable cases a fair trial of combined electric and medicinal treatment, and gives due consideration to the grounds on which he may justly temporise in the cases to which Apostoli's methods are not applicable, he must seldom have the opportunity of performing abdominal hysterectomy for fibromyoma uteri.

In September, 1891, I was asked by Dr. Niven, of Didsbury, to take under my care at the Southern Hospital a case concerning which there could be little room for hesitation as to the method of treatment.

Case III.—H. S., aged 32, domestic servant. Admitted to Southern Hospital, September 3rd, 1891. Was in good health until over twelve months ago, when menstruation began to be profuse. Period, seven days formerly, but for last few months floodings have been brought on by any unusual exertion about time of period. Patient extremely anæmic. *Examination.*—Hard tumour extending to near umbilicus, broad, symmetrical. Sound indicates wide cavity, and passes six inches.

Operation, September 9th.—Chloroform anæsthetic used. Abdominal incision. Tumour drawn forwards by means of volsellæ. Fallopian tubes and vessels on either side double ligatured and cut. India-rubber tube passed through the uterus low down by means of a special trocar and cannula, and base of tumour constricted. Tumour and uterus above tube removed with formation of flaps. Vessels ligatured. Flaps and peritoneal edges brought together by silk and silkworm gut sutures. Tubing removed. Suturing completed. Flushing of abdominal cavity with saline solution. Glass drainage-tube. Abdominal wound closed with deep

silk and superficial silkworm gut sutures. Sponges soaked in sublimate solution for dressing.

The tumour removed was a rounded mass six inches by five inches; the cavity very wide, with a very soft myoma bulging into it.

September 11th.—Removed glass tube and substituted rubber tube. Tube washed out daily with saline solution. Uneventful recovery. Patient seen at intervals for twelve months; remains perfectly well.

Case IV.—F. A., aged 34; unmarried; seamstress. Patient of Dr. Daniel, of Cheadle. Admitted into Southern Hospital, November, 1890. Until four years ago menstruation was regular but painful. On some over-exertion while menstruating she had an attack of profuse menorrhagia, lasting a fortnight. Suffered from menorrhagia ever since. Soon after first flooding it was discovered that she had an abdominal tumour. There is some irritability of the bladder, probably from pressure. Patient extremely anæmic. On examination, the abdomen was found distended by a tumour extending about two inches above the umbilicus, and about four inches on each side of the middle line. The tumour is hard and symmetrical. This patient was treated by the electrical method according to Apostoli—the positive pole in the uterine canal, and the strength never more than 120 milliamperes. She was also treated with ergot and nuxvomica. She was discharged feeling much better on January 6th, 1891:

Re-admitted September 7th, 1891, more anæmic than ever, and with the tumour somewhat larger.

Operation, September 23rd.—Myomotomy as in former case. Owing to size of tumour a long abdominal incision had to be made, and after the tumour was dragged through, temporary parietal sutures were inserted to prevent accident to intestines. The tumour was irregular, with a nodular mass behind, which made the formation of flaps more difficult than usual. The suturing of the stump was carried out without regard to the existence of a cervical canal. The pelvic

cavity was flushed with saline solution after the stump had been dropped back, and a glass drainage tube was inserted.

In this case there was considerable shock at first, but the patient soon recovered, and the after-history was without incident. She was discharged well October 28th.

This patient, when last seen, several months after leaving the hospital, was quite comfortable and well.

Case V.—E. K., aged 38; married eighteen years; four children. Patient of Drs. J. T. Williams and Carmichael, of Barrow-in-Furness.

Symptoms.—Menorrhagia, with pressure troubles. Long under treatment. Sent for operation. Tumour rising above umbilicus; somewhat irregular. Sound passes seven inches.

Operation, September 29th, 1891.—Details as before. Very little hæmorrhage; flushing, drainage, sponge-dressing.

Discharged well, November 4th.

Case VI.—J. H., aged 38; married four years; sterile. Patient of Dr. Andrew, of Glossop. History of profuse menorrhagia for "a few months." Attack of cystitis eighteen months previously. Extreme trouble with bowels, as if from pressure of tumour. Tumour size of seven months' pregnancy. *Per vaginam*, os cannot be reached with examining finger without administration of an anæsthetic.

Operation, December 2nd, 1891.—Large incision, and temporary suture of upper portion of abdominal wound. Operative details as before. Ovaries and tubes removed with tumour. Flushing with saline solution, drainage by glass tube, sponge-dressing. Considerable shock at first; some symptoms of peritonitis second day, but these rapidly passed away. Tube removed on 6th, all sutures on the 9th of December.

Case VII.—E. P., aged 34; married nine years; two children; last confinement five years ago. Patient of Dr. Deans of Ramsbottom; admitted January 23rd, 1892. There is a large irregular nodular tumour filling up the pelvis and rising to the level of the umbilicus; not easily movable, very hard. Patient complains of constant pain in the tumour.

Has an anæmic appearance, almost cachectic. Menstruation is fairly normal.

There is an unsatisfactory family history in view of abdominal section. A sister died ten years ago from operation for an abdominal tumour in a Manchester hospital, and a cousin died last year from an abdominal tumour—particulars not known, but "she underwent some treatment with a battery."

Operation, February 3rd, 1892.—Extreme care to avoid hæmorrhage owing to the condition of the patient. No sign of inflammatory or malignant change in tumour. No adhesions. Details of operation as before—flushing, drainage, sponge-dressing. Signs of shock from the first. Temperature began to rise at once after primary depression; pulse quickened. Dressing next morning. Fluid removed through drainage tube by syringe in usual way instead of being dark liquid blood was a dirty brown fluid. Patient died thirty-six hours after operation; collapsed. Fluid taken for analysis but cause of phenomena never ascertained. Bladder and ureters were intact.

Note.—Some months before this I found while operating the irrigator filled ready for use with a solution of corrosive sublimate, and fortunately discovered the nurse's mistake just in time. I do not hold the operation responsible for this death.

Case VIII.—A. P., aged 40; unmarried; domestic servant. Patient of Dr. Wignall, of Wilmslow. Admitted to Southern Hospital, January 11th, 1892, suffering from menorrhagia and metrorrhagia, and distress from weight of a large abdominal tumour. History of increasing hæmorrhage with growth of tumour, until patient became quite unfit for work seven months previous to admission. Attack of cystitis five years ago; occasional need for resort to catheter at menstrual periods. Little trouble last three months. The tumour was found to be a hard regular ovoid mass in abdomen, rising above umbilicus. Freely movable at its upper part. *Per vaginam*, the vaginal portion is very high, out of reach of

examining finger. Very hard mass in pelvis, apparently fixed. Sound passed five inches.

Abdominal hysterectomy, February 10th, 1892.—Incision large; difficulty in bringing mass out of abdominal cavity owing to the exactness with which one portion filled the pelvis and was wedged in. Flaps made bit by bit rather low down, especially behind, and each small portion of flap sutured as made. Both ovaries and tubes were removed with the uterus. Irrigation, drainage, and dressing as before. The glass tube was removed on the 14th, and a rubber tube substituted. On the 15th offensive smell from the tube, and malodorous fluid drawn out. From this time for about ten days the treatment was for slough separating from the stump, and after all the dead tissue came away in liquid or in shreds, the course was normal, but rather tedious. Patient discharged well, March 29th.

Case IX.—M. A., aged 39; single. Patient of Dr. Daniel, of Cheadle. Admitted in state of extreme anæmia, with pressure symptoms, and uterus with tumour so low as to appear prolapsed. History of menorrhagia for over twelve months—unfit for any sort of domestic work owing to pressure of the tumour in the pelvis. There is also a large mass in the abdomen like a five months' pregnancy.

Operation, February 20th, 1892.—The mass in the pelvis gave rise to some embarrassment, as it was only after ligature and division of the broad ligaments that it could be dragged up by means of several volsellæ. More trimming of the stump than usual owing to the asymmetry. Completion of operation as usual—flushing, drainage, external sponge dressing. After history uneventful. Patient seen February, 1893, in excellent health, and fit for work.

Case X.—Mrs. D., aged 32, private patient, formerly under care of a London practitioner, and consulted Sir Spencer Wells, who recommended operation. Suffering much distress from a hard nodular tumour in abdomen about size of four months' pregnancy. Menorrhagia.

Operation, May, 1891.—On drawing forward the tumour

through the wound in abdomen, the growth was found to be almost entirely above the ovaries and Fallopian tubes, and the amputation was accordingly so carried out that the ovaries and tubes were left in their normal relations when the stump was completed.

Patient made a tedious recovery; had attack of phlegmasia dolens; sinus above pubes, where drainage tube had to be long retained, persisted for many months. When last heard of she was in excellent health, and menstruating almost normally.

Case XI.—Mrs. R., aged 44; married nineteen years; four children; admitted to a "nurse's home" for operation from Cheadle Royal Lunatic Asylum. This was a rather remarkable case. Patient had been suffering from a fibroid tumour of the uterus for years; had undergone much treatment, including prolonged electric treatment in Liverpool until two years before. History of attacks of peritonitis; now constant pain. Patient had certain insane ideas about the effect of the tumour on her brain, and she had often threatened to commit suicide if not relieved. After many interviews with the patient, and consultations with Mr. Mould, I resolved to give the patient what chance there was for the restoration of her health from an operation, and accordingly on May 22nd, 1892, I removed the tumour and ovaries by abdominal section. The tumour was adherent in the pelvis, and the ovaries and tubes were matted and adherent to the tumour, so that the operation was extremely difficult and tedious. The usual flaps were made in the uterus, and special care was taken to ligate the arteries and to get as much of the uterus away as possible, so that the patient might never menstruate again. Completion of operation as in other cases described.

Patient made a fair recovery, but considering the nature of the case there was no attempt at hastening convalescence. For two or three weeks her mental condition appeared to be worse instead of better, but gradually an improvement showed itself, and in the end of July she was able to be taken to a seaside resort instead of to the Asylum. She has been heard

of at intervals since, and she is now well, and fit to superintend her household and look after her family. She never had a "show" from the week of the operation.

Case XII.—Mrs. M., aged 39; married ten years; no children; from the Isle of Man. Under treatment for many months at intervals with electric apparatus; always improved a little, then relapsed. Tumour became wedged in pelvis; and there was retroflexion with the tumour just large enough to cause constant distress. Could not be replaced by manipulation. Admitted "Nurses' Home" October 20th, 1892.

Operation, October 24th.—After getting the tumour out through abdominal wound the operation was easy. The mass was symmetrical and only required amputation, the ovaries and tubes being taken away with the tumour; the proceedings were similar to that described before; very little blood lost. On dressing next day some clots came away through the tube, as only plain water had been used in flushing. The chart shows that the temperature rose only to 100° and the pulse to something under 100. Patient left well on November 30th. She was seen by me April 9th, 1893, and was then in perfect health.

Case XIII.—One more case, which was treated at the Manchester Maternity Hospital, completes my list of intra-peritoneal operations up to the end of 1892. It was not a case of myoma, but one requiring Cæsarean section on account of extreme deformity of the pelvis. The operation was done in the usual method according to Porro, but instead of using the *serre-nœud* I amputated as in case of myoma and dropped in the stump. There was little hæmorrhage at the time of the operation, and the after history of the case was fully the most favourable of the four Cæsarean sections which I have performed successfully at the same institution.

History of the Controversy as to Methods of Treatment.

About this it would be easy to make details wearisome, for the bibliography is copious, and yet not sufficiently interesting and instructive to justify, on the one side, the

labour, and on the other the strain of attention. The extra-peritoneal method, with which we associate the name of Koeberlé was introduced thirty years ago, and the confidence of the profession in the method was strengthened by the work of Péan and others in France, by Hegar and others in Germany, and by Keith in this country. Various improvements were introduced, and with the advent of the antiseptic method in surgery a great diminution took place in the mortality. Up to 1877 the mortality of 105 operations, according to Péan's method, was 57, that is = 54 per cent.; in the following five years, in 371 operations, partly extra, partly intra-peritoneal, the mortality was 127 = 35 per cent. (Hofmeier — "Die Myomotomie," 1884). Still it remained high, taking the average of a large number of operators, and Pozzi in his book published three years ago gives it as over 22 per cent.

It was about 1878 that Schroeder first called attention to an intra-peritoneal method of treatment, the characteristic of which, as compared with previous crude attempts, was careful suturing of the flaps in the uterus left by the removal of the tumour by the formation of a wedge-shaped or conical cavity. Four years later he described the *technique* of his operation at the Congress at Salzburg, and gave his results; and he continued to practise the operation, and probably to improve upon the details of the proceedings up to the time of his death. Schroeder's first explicit account of his operation and results is published in the *Zeitschrift für Geburt's hülfe & Gynäkologie*, Band viii., 1882. In 1884 he gave the results of 66 operations, showing a mortality of 30 per cent., which is the figure quoted by the opponents of the intra-peritoneal method. But he stated at the same time that in his last 40 cases he lost 22 per cent., and in the last 14 only one patient died, a mortality of 7 per cent.

Schroeder's operation was taken up by his friends and pupils, and very soon there was an extensive literature on the subject. Olshausen* advocated it in 1881, and as far as I

* *Deutsche Zeitschrift für Chirurgie*, 1881.

can learn, continues to practise it in suitable cases. As illustrations of the results, the work of a few of the operators may be referred to briefly. Bourwieg, in an inaugural dissertation, gives an account of the cases of Professor Küster at Halle up to 1883. He had performed 15 operations by the intra-peritoneal method, with a mortality of 6. Tauffer in 1884 lost 4 cases in 7. Gusserow (*Charité Annalen*, 1885) reports 19 cases, of which 6 ended fatally. Numerous gynæcologists published smaller numbers of cases with as bad or worse results. With such a high mortality in the hands of the most experienced operators it is not to be wondered at that all sorts of modifications in the *technique* were introduced both in France—where the extra-peritoneal method was universal—and in Germany, where both methods had their partisans. Chief among the modifications which found temporary favour were the use of the elastic ligature, which was dropped into the pelvis with the uterine stump; and the ligatures in juxtaposition as introduced by Zweifel. When one reads in detail the *technique* of these operative proceedings the wonder grows how any patient could have escaped with her life, and yet there can be no doubt that Zweifel has obtained wonderfully good results, and that even the “sunk elastic ligature” gave rise to less trouble than might have been anticipated.

Every one knows how unreliable or even misleading upon the whole the statistical results of operations are, but still we are all influenced by them. For example, Hofmeier in his monograph on “Operative Gynæcology,” published in 1888, shows that Schroeder performed myomotomy in his own way 164 times, with a mortality of 30 per cent., while Martin published 86 cases, of which 15 ended fatally—a mortality of 18 per cent. But Hofmeier significantly notes that the figures of the latter refer to his *last* 86 cases. Still, the general result produces its effects, and Schroeder’s method fell to some extent into abeyance in favour of less scientific and hopeful operations. In this country it appears to have been tried, but according to some authorities the results were

disastrous—so much so that they have never seen the light in the professional journals. Sir Spencer Wells was one of the earliest and most consistent advocates of the new method, and comparatively recently the results published by Dr. Milton, of Cairo, and Dr. Heywood Smith, would appear to show that the disasters are not inherent in the operation, and that sooner or later the best method must be recognised as such by all scientific gynæcologists.

One of the most remarkable papers which has appeared in recent years on this subject is that of Dr. Brennecke of Magdeburg, entitled "One Word for Schroeder's Method of Myomotomy." His "one word" extends to 72 pages of the *Zeitschrift für Geburtshülfe und Gynäkologie*, Band xxi., but to those interested there can scarcely appear to be one useless or superfluous line. He gives in considerable detail the method of operation carried out by Schroeder, and declares that he has implicitly followed it. He reproaches some operators, including Olshausen and Fritsch, for their simplifications or improvements. Brennecke's contribution is founded on 22 cases of myomotomy. In the first case the extra-peritoneal method was followed by a fatal result. Of the remaining 21, in 3 the elastic ligature was employed and left in the stump. The patients all recovered. In the remaining 18 the method of Schroeder was followed implicitly without the loss of a single patient.

With such results who would not stick up for his own adopted plan of procedure? Brennecke objects to certain simplifications of the original operation, but we are pretty safe to predict that some details which waste time must be dropped if the intra-peritoneal method is widely accepted.

At the meeting of the Obstetric and Gynæcological Society of Berlin in February, 1891, Fritsch, of Breslau, read a paper on the "Intra-peritoneal Treatment of the Stump in Myomotomy," in which he declared that he had given up the extra-peritoneal method and total extirpation in favour of the intra-peritoneal. His results by the extra-peritoneal method had improved from 25 per cent. mortality to 7 per

cent., but still he had concluded that the intra-peritoneal was the best method. In this opinion he was supported by Gusserow and Olshausen.

With such testimony in favour of the operation, we may very well set aside the opinions in this country which tend to create prejudice, and we may discuss the operation on its merits. In order to do this there are numerous misstatements from various sources to be counteracted, but for that we must wait for the experience of many; the question is not to be settled by any dictum.

Method of Operation.—(1) The abdominal incision is made in the usual way, care being taken to have it large enough just to permit the tumour to be drawn forward by means of volsellæ. As the tumour is coming out, its place should be partly taken up by hot sponges packed behind and around it. Temporary abdominal sutures may be inserted in the upper part of the wound to prevent any accident to the intestines should the patient be permitted to strain or vomit during the operation. (2) If the tumour can be raised well out of the pelvis, it will be easy to get at the broad ligaments. These should be tied double, one after the other, preferably just below the ovary, and cut through. The first ligature secures the ovarian arteries. It is necessary to introduce a second ligature on each side, entering to some extent into the uterine tissue, in order to tie the branches of the round ligaments and the ascending uterine arteries. (3) The uterus may now be rapidly amputated transversely, care being taken to have plenty of peritoneum. The incision should be made deep enough to obtain a comparatively thin pliable flap. Bleeding points may be seized with pressure forceps, but the hæmorrhage, except from the tumour itself, the blood already lost to the patient, is never formidable. There is seldom any from the posterior flap. Prominent vessels may be ligated with catgut, but this is rarely necessary. (4) The suturing of the flaps now begins, supposing these have been made tolerably symmetrical. A fine silk suture may be inserted about the centre of the an-

terior flap, taking a good hold of peritoneum and muscular tissue, run well down to the bottom of the cavity, and then passed out with the same relation to the tissues of the posterior flap as to the anterior. When this is well tied it is usually apparent that the rest can be quickly accomplished. I have used chiefly silkworm gut for the other sutures, putting in fine catgut between if the peritoneal edges did not seem to come precisely together. When the silk ligatures at each side, securing the ovarian and uterine arteries, have been left uncut, they help greatly—when slight tension is put upon them—in permitting a survey of the whole field of operation during the process of suturing.

(5) *The Cervical Canal.*—I have not hitherto paid any attention to the canal. It has been closed by the sutures like other parts of the stump, and instead of fearing it as a source of infection, I have expected that it might act as a drain if any tension were to occur from hæmorrhage into the stump. If it be true that the canal contains no bacteria, and if the vagina be kept clean, it is not evident how infection can arise with an open canal along which any mucus secreted would naturally find its way. However, I see no objection to the careful application of a strong solution of carbolic acid to the orifice of the canal in the stump, except that it is one more detail which occupies time, and is therefore, if not essential, to be deprecated.

(6) *Drainage.*—With one exception, I have drained usually after flushing with .6 per cent. saline solution. Brennecke did not drain in any of his cases, and Fritsch says that drainage is superfluous or useless. Dr. Heywood Smith remarked in his paper (read before this Society), that when hæmorrhage is completely stopped, drainage is unnecessary. On that I should like to remark that hæmorrhage is apparently always stopped before the stump is lost sight of by the operator. I was going to perform this operation of myomotomy the morning I read Dr. Heywood Smith's paper, and I took particular notice of the amount of blood removed by the syringe, through the drainage tube, at the dressings im-

mediately succeeding the operation in this case. At the first dressing next day there were three ounces of blood; on the second day two ounces of blood; and on the third day one ounce of red serum, and then the tube was withdrawn. That does not imply much to those who believe in the enormous appetite of even the *wounded* peritoneum, but to me it implied the possibility of disaster. In another case, there was sloughing of a small portion of a flap, and the result would certainly have been fatal but for the drainage tube. I have never drained except by the ordinary glass drainage tube inserted through the abdominal wound, followed by a substituted rubber tube when it was desirable to keep open a sinus, as in the case of sloughing.

7. *External dressing.*—When the end of a glass tube must project from the wound I do not know any more effective dressing than one of the sponges used at the operation, soaked in mercury solution, and so cut as to lie close round the tube, and covering the wound with another sponge placed over the first and closing the end of the tube. The sponges take up the fluid which comes from the tube when the patient strains or coughs as no other dressing does. When the tube has been removed the ordinary dressing with carbolic acid in glycerine seems to give the best result in preventing suppuration in the suture tracts.

Let us now consider some of the objections raised to this operation both at home and abroad, by operative gynæcologists, who have either not attempted it or had disastrous results. These objections are real or imaginary, and first for the imaginary or unreal.

(1) It has been objected that there is great danger of hæmorrhage, both immediate and remote. On the contrary, the immediate hæmorrhage can be controlled as effectively as in the amputation of a limb, even although the preliminary elastic tube, as applied by Schröder and his imitators, be not brought into use. And as for remote hæmorrhage owing to shrinkage of tissues, cutting through of ligatures and sutures, and so on, they are all *a priori* objections and contradicted

by experience. If you will examine this object, which is the stump removed from the pelvis of a woman—a recent case—who died of peritonitis four days after the operation, you will see how firm it is, and how little support its appearance gives to this objection. The condition of the stump also suggests an answer to another unreal objection, viz.:

(2) *There is danger of infection from the open cervical canal.* This is also, in my opinion, an *a priori* objection unsupported by facts, but I have already stated incidentally all I need to say on this point.

(3) Some objectors to the operation have pointed out that the ureters are in danger, but this depends upon the operator, and the danger is not so great as in the extra-peritoneal method, which also threatens bladder and intestines, and frequently does harm by tension. Some operators try to take too much away, the extreme of this tendency being the extirpation operation of Martin, of Berlin. It is not necessary to remove the whole of the tumour, even if it is not defined distinctly from the uterine tissue, and it is never necessary to cut so deep as to endanger the ureters or bladder.

Among the real objections are:—

(1) The operation entails more immediate loss of blood than the extra-peritoneal method. This is true, but the difference may be marvellously little. The blood in the tumour is mostly lost in any case, and the quantity lost on incision in making the flaps, if the bleeding points be quickly caught, need make little difference to the patient's condition.

(2) It takes longer time. This is quite true, and is an important objection, inasmuch as longer time and longer exposure implies more shock, and therefore greater danger. Many of the drawbacks arising from time and exposure can be prevented, however, by careful protection of the field of operation and the application of warmth about the patient.

(3) There is a large amount of suture material left in the stump, which may give rise to trouble. This may be an inconvenience, as a sinus may last a considerable time after prolonged drainage, and sutures may be discharged at inter-

vals for months ; but it is only a temporary inconvenience and is not inherent in the operation. In Brennecke's, fourth case he describes the closing of the wound in the stump in the following terms :—"Suturing of the bed of the tumour by means of about 50 separately tied catgut stitches in stages beginning at the bottom, and reaching to last the row which closed the peritoneum, and consisted of about 18 sutures of iodoformised silk. On the removal of the elastic ligature, about three supplementary sutures were required to produce absolute cessation of hæmorrhage." Here we have 71 stitches of one sort or other in the stump, and the progress of the case is indicated as "Ohne jede Störung," and the patient's condition later as "Sehr gut." The average number of ligatures and sutures which I have used has been about 15.

I do not mean to say that in every case requiring myotomy the intra-peritoneal method should be adopted ; there may be circumstances, upon which I will not enlarge, in which it might be best to employ the extra-peritoneal, and, indeed, within the last month I resorted to it in an exceptional case ; but my experience leads me to quote and to approve the statement of Schröder.

In the year 1882, C. Schröder wrote : "The most burning question in operative gynæcology at the present time is that concerning the best method of removing uterine myoma by abdominal section. Whilst the operative procedure in ovariectomy is so definitely settled that in an ordinary case the various operators perform the operation in a somewhat identical manner, and only in subordinate details and when extreme difficulties are met with permit themselves to depart from the ordinary course to any important extent, the case is very different in regard to myotomy. And yet it can hardly be doubted that the treatment of the stump is passing through the same process of evolution here as in the case of ovariectomy. At first the extra-peritoneal treatment held the field, gradually it came into competition with the intra-peritoneal method, and now the latter has finally triumphed" (*Zeitschrift für Geb. und Gyn.*, xxi., quoted by Brennecke).

Schröder's confident reference to victory was premature in 1882, and any similar expressions would be premature still, but there can be little doubt in the mind of any gynæcological surgeon of experience who watches the signs of the times, that only a few short years can now elapse before Schröder's predicted position becomes an accomplished fact.

Dr. HEYWOOD SMITH contended that "subperitoneal" was a more accurate term than "intra-peritoneal" to describe the operation, inasmuch as the wounded surface of the uterus was not left free in the peritoneal cavity, but was covered over and closed by peritoneum; and this was so, both when the uterine canal was opened and when it was not interfered with. Dr. Heywood Smith then related a case of his own in which the operation was rendered very difficult by the great vascularity of the tumour, and its adherence to the pelvic wall and omentum. The ovaries and tubes were first of all tied and cut away, after freeing them from adhesions which bound them down under the edge of each broad ligament. The left was cystic, size of Tangerine orange; the right, about the same size, was full of pus. The oviducts were very much thickened, especially the right, which was lined with pyogenetic membrane. An elastic ligature was then placed round the base of the tumour, two peritoneal flaps were made, and the tumour was shelled out. A suture was then carried round in the stump, like the string of a lady's bag; the peritoneum was then sutured over the raw surface with Bishop's sutures. The patient made a good recovery.

He thought the treatment should be different in cases where the cavity of the uterus was opened up; and that when the cervix is left, and we begin to lace up the peritoneum across the pelvis, we cannot afford to neglect or destroy the cervical canal. For when mischief happens it is always then under the peritoneum; and if suppuration occur the discharge will come away readily if the os be dilated. Provided sufficient care is exercised in the treatment of the stump and in the checking of hæmorrhage, the majority of patients can be saved, if the (intra-peritoneal or) sub-peritoneal method

be adopted. As to the extra-peritoneal, or method with the clamp, he thought this would soon be forsaken altogether in favour of the more scientific procedure.

The adjournment of the discussion to a future meeting was moved by Dr. BANTOCK, and seconded by Dr. TRAVERS.

An amendment by Dr. Leith Napier, seconded by Dr. Dickinson, that the meeting be extended to half-past ten, was negatived.

It was then resolved to continue the discussion at an extra meeting, to be held on Thursday, April 27th.

Dr. GRANVILLE BANTOCK showed again, by request, two of the specimens exhibited at the last meeting, illustrative of one of the procedures he adopts, viz., enucleation and treatment of the stump by the extra-peritoneal method. He also showed two new specimens :—

(1) An œdematous fibroid tumour, presenting the usual clinical and physical characters of a molluscum fibrosum, removed from a woman, aged 40, who had had six children. It was easily shelled out till its connection with the uterus was reached; this was one inch in diameter, and very firm, and, unlike the case of most fibroids, required division by the knife. The uterus was low down, but was pulled up without difficulty, and a *serre-nœud* of delta metal was applied. The operation was three weeks ago, and the patient was now convalescent.

(2) This was also a tumour, removed from a patient aged 40, who had been married some time but had had no children. Nine months before she ceased to menstruate, after having for a short time menstruated scantily, and it was therefore thought that the menopause had set in. There was a large mass in the epigastrium, continuous below with a smooth mass in the lower abdomen. The os was drawn so high up that it could only be reached by the tip of the finger at the upper part of the vagina, which here presented a tubular form. The breasts were small, and the areolæ were devoid of pigmentation or papillæ. The growth had been exceedingly rapid of late. At the operation the lower part of the tumour presented

a peculiar striated appearance, not at all looking like ordinary uterine tissue. Pregnancy not being suspected, an elastic ligature was placed round the base, and enucleation commenced from the back. The tissue was here thin, and, operating rapidly, a sudden incision revealed the cavity of a gravid uterus, with a living child in it. The child was extracted, and lived for twelve hours. The obscurity of the case was due to the fact that in front the uterine tissue was quite two inches thick; and between this and the solid structures at the back the child was so shut in that it could not be felt. The *serre-nœud* was applied and the operation completed. Very great care was required in tightening the *serre-nœud* over the soft tissues of the cervix. Hæmorrhage was all stopped at the time of operation. Next morning, however, there was some bleeding from the stump. This continued for two or three days, but yielded for a time to each successive tightening of the *serre-nœud*, and finally ceased. The operation was two weeks ago, and the patient is now getting on well.

Dr. JAPP SINCLAIR asked whether the urgency of the symptoms did not in this case give a clue to the pregnancy. He had heard of an instance in which this feature led to a correct diagnosis.

Dr. BANTOCK replied that it was very difficult to get any history from the patient.

The Society then adjourned.

THE BRITISH GYNÆCOLOGICAL SOCIETY.

THURSDAY, APRIL 27, 1893.

F. BOWREMAN JESSETT, F.R.C.S., PRESIDENT, IN THE CHAIR.

PRESENT: 39 Fellows and Visitors.

The adjourned discussion on Dr. Sinclair's paper read at the last meeting was resumed by Dr. BANTOCK, who read the following paper.

In entering on the discussion of the very important paper read at the last meeting of this Society, I ask your indulgence while I endeavour to set my views before you as fully as time will permit, and as concisely as I can.

I desire, however, first to express myself in terms of the highest commendation of the value of the paper, not only as a contribution to the literature of a very important subject, but especially as the basis of a discussion—for it actually bristles with matter for debate—because, entertaining this high opinion of the paper, it will be my duty to subject the views therein expressed to very stringent criticism. I shall not shrink from giving expression to my own views in very decided terms, and while in the main I shall take up a position of antagonism, I shall endeavour to give no one cause to say that I have exceeded the limits of legitimate discussion.

It is scarcely necessary for me to say that I came to the reading of the paper with more than ordinary interest, for the subject has been ever in my mind for well nigh twenty years. Having a well-founded idea of the position taken up by the author, I confess that I was somewhat uneasy lest the views, in which experience of no inconsiderable amount had more and more confirmed me, should receive a rough shaking—lest, in fact, I should even be overwhelmed in confusion. But

when it was all over, an agreeable sense of relief took the place of apprehension, and I never felt more satisfied with myself.

But I must now come to closer quarters.

On the question of the electrical treatment—of the failure of which Professor Sinclair has contributed a striking example—I do not intend saying more than that the position I took up in 1878 has been amply vindicated and confirmed.

The first point on which I made a note was the question of the influence of the removal of the appendages on the life of uterine fibroids. I think experience has clearly shown that it is in the hard variety—or true fibroid—that this influence has been established. In the soft variety the effect is not satisfactory, and my experience has led me to the decision not to repeat the operation in such a case. There seems to be *a priori* reason to suppose that in the case of the molluscum fibrosum the operation would be perfectly useless. But even in the case of the hard fibroid there would appear to be a limit to the cases suitable for this method of treatment, and in my own mind I take the size of the tumour as marking the limit, as a rule. On the other hand, cases occur in which the removal of the appendages would be so difficult and hazardous that the removal of the tumour itself becomes the less serious operation. Here the skill and experience of the operator come into play, and I, for my part, am unable to mark the limit with anything approaching precision. At this point I may interpolate the remark that I am unable to approve of a practice which seems to prevail in France, viz., that of removing the whole uterus because of one or more small fibroids. That is a practice which I am sure will never take root in this country.

My next note takes up the argument from ovariectomy, which is made so much of by the advocates of the intra-peritoneal treatment. I have had frequent occasion to speak on this subject, and so often has the fallacy been exposed that I had hoped this dead horse would not have been trotted out again. But I was mistaken, and I now find that I must take this opportunity of going fully into the subject—I hope for the last time.

The opponents of the extra-peritoneal method of treatment seem never to get tired of affirming that, because the results in ovariectomy have so much improved since the general use of the intra-peritoneal method, we shall not attain to the best results of which the operation is capable until we have applied this method to the operation of hysteromyomectomy. The deduction is drawn from false premisses. I can hardly believe the author of the paper was serious when he quoted the description of the physical properties of German cheese and butter as comparable to the state of the uterine tissues constituting the pedicle in some cases. I don't find this in the paper as printed. Perhaps he thought that ridicule might prove a more powerful weapon than legitimate argument. Surely he must have seen that there was an obvious exaggeration in the description, from which the author, himself, is not wholly free. And yet there is some truth in it, as I shall presently show.

Those who rely on this argument seem to forget that there is an essential difference in physical properties between the tissues which compose the ovarian pedicle and those which enter into the composition of what is known as the uterine pedicle. In the former the tissues are compressible to a high degree, and even retain their continuity when subjected to the crushing process. Moreover, very little shrinkage takes place after the application of the ligature, when, by division of the tissues, the stump has had an opportunity of becoming drained of its moisture, provided too much tissue be not included in the loop. To guard against that I have for many years been in the habit of forcibly compressing the pedicle when at all thick. If it had been the practice to embrace the whole of a thick and broad pedicle in one loop, I venture to say the ligature would never have attained to the position of confidence it now holds. Oozing, if not serious hæmorrhage from shrinkage, would be frequently observed; slipping of the ligature, as it is called, would be a common occurrence when the pedicle is short and broad, where the peritoneum is necessarily folded on itself, and there is a drag on these folds

from the side of the pelvis—for it is always the outer part of the broad ligament that is dragged through the loop when this accident happens. To obviate these occurrences the pedicle is divided into as many sections as its size may demand. It was for the purpose of preventing the slipping through of the outer portion of the pedicle that I devised the plan of putting a separate ligature—of a finer thread—on the outer edge of the broad ligament before applying the main ligatures, and in some cases added forcible compression before tying them. All these characteristics I have mentioned are peculiar to the ovarian pedicle.

Now the treatment of the ovarian pedicle by the ligature has a special interest for me. The experience of Tyler Smith, perhaps because of its limited extent, was overshadowed by the vastly greater experience and reputation of Spencer Wells. Hence it happened that Tyler Smith's experience had either been forgotten or overlooked, and the clamp was at the height of its popularity when I began my career as a gynæcologist. I had seen a great deal of the clamp, and it was not long ere I recognised its disadvantages. Moreover, a study of Spencer Wells' cases showed that while the results with the ligature were inferior to those obtained with the clamp, yet the difference was explained by the fact that the favourable or easy cases were treated with the clamp, while the difficult cases—or those in which the clamp could not be used—were reserved for the ligature. Need it be wondered at that the results were in favour of the clamp?

In my first case I used the ligature, and though the case was a very bad one, the patient made a good recovery. In my second case there were two tumours; one pedicle was treated with the clamp and the other with the ligature. The patient died twelve months after operation, and it was from this case that I obtained the specimen which enabled me to give to the world, through the Obstetrical Society, in January, 1872, that explanation of the changes which take place in an ovarian pedicle after the application of the ligature, which is now generally accepted as correct. In my third case I used

the cautery, and, though the case did well, I have never repeated it, for the reason that it is not of universal application. In my fourth, fifth and sixth cases I used the clamp, and in the last was much bothered by prolapse of the pedicle. By this time I had been able to study the question of the clamp *versus* the ligature, and it was a logical deduction that if the ligature was good enough for the bad cases, it was, *a fortiori*, also good enough for the favourable cases.

It was under these circumstances, then, that I publicly announced in the Samaritan Free Hospital that I would not again use the clamp until I had given the ligature a fair trial and it had failed me. Since that date, viz., November, 1875, I have never used anything but the ligature, yet the clamp continued in use till the following July, when Mr. Thornton also abandoned it, and the use of the ligature became invariable with us. But, waiting until I had accumulated overwhelming evidence I was anticipated in the matter of publication, and hence I have not obtained the credit that I consider my due.

You will gather from this that I am not likely to be influenced by prejudice against the intra-peritoneal treatment in hysteromyomectomy, and that sentiment would have led me towards it; but I have had to yield to the stern logic of facts. For, when we come to consider the nature of the uterine pedicle, so called, we find a very different state of things. We find that it is very incompressible, because of its solidity; that after section it shrinks—partly through loss of fluid—before the compressing force, of the ligature for instance, until within a few minutes the loop of the ligature is quite slack. This phenomenon is peculiarly observable in using the *serre-nœud*, as I have demonstrated over and over again in the course of operation. We find that if a high degree of compression be employed, as for instance by the *serre-nœud* or cautery clamp, there is a distinct solution of continuity in the uterine tissues, and they are seen to be cut as if by a knife. I have seen this occur with the *serre-nœud*, the cautery clamp and pressure forceps, and even with the ligature. Here comes

in the comparison with German cheese on which Professor Sinclair threw so much ridicule. But the analogy is not so far fetched after all, for a ligature applied to a piece of cheese will cut its way through, as the cautery clamp cuts its way through the uterine tissues. Again we find that uterine tissue contains no vessels endowed with muscular walls which can contract and seal their open mouths, as we meet with in the ovarian pedicle. For confirmation of these points I confidently appeal to the evidence so abundantly furnished by Professor Sinclair's own cases; but I shall return to this aspect of the question.

I say, then, that the argument derived from the results of the intra-peritoneal treatment of the ovarian pedicle is based on false premisses, and unless the advocates of this method in the case of hysteromyomectomy or supra-vaginal hysterectomy can appeal to superior results, I, for one, shall not listen to them. It is all very well to speak of the extra-peritoneal method as "barbarous"—hard names break no bones. Nor is it sufficient to speak of this method as non-scientific, and to claim for the intra-peritoneal that it is the true scientific method. It is merely a repetition of the definition of orthodoxy—"my doxy is orthodoxy, yours is heterodoxy." Hard facts in the form of clinical results stare us in the face, and until you can harmonise your results with your theories you have no right to insist on the scientific character of your method. It is not a question of science at all; it is only empiricism, or, in other words, a balance of evidence. When you can secure invariable conditions then it will be time enough to speak of scientific principles. But that time has not yet arrived, and for the present I hope to hear no more of science "falsely so called." Until we know what life is, all this invocation of science is only a vain "beating of the air."

What, then, is the evidence which Professor Sinclair's cases so abundantly supply? In every case—without a single exception—there was hæmorrhage after the treatment by ligature, and had it not been for the drainage tube I imagine no one will doubt, as he himself does not doubt, that he would

have had a different tale to tell. In some cases, indeed, the hæmorrhage was considerable—amounting to many ounces of blood—yet in all these cases, I presume, the hæmorrhage appeared to be arrested and provided against when the application of the ligatures was completed. In his experience, which seems to be so very general, the author of the paper is at distinct variance with Dr. Heywood Smith, and I must say his experience is confirmed by my own. Again, this bleeding was not for a few days only—as from ruptured adhesions not involving the uterus—but continued so long that, in several cases, an india-rubber had to be substituted for the glass drainage tube, and in some cases it was weeks ere the track closed up. How different from the cases of drainage after an ovariectomy with adhesions! I agree, therefore, with Professor Sinclair as against Dr. Heywood Smith.

The author of the paper tells us that it was in 1878 that Schroeder devised that method of treatment of which he is so enamoured, and which he advocates with so much zeal. Curiously enough the same year and the 15th of November witnessed my first case, to which I must here refer; for it will be seen to run on all fours with Schroeder's method. The case was that of a single woman aged 27, the subject of a fibroid tumour (in a state of cystiform degeneration) involving the upper part of the body of the uterus. The case was a very favourable one for the extra-peritoneal method. But at that date the cautery was much spoken of, and as the case seemed a very suitable one I decided to use it. It was easy to apply the clamp so as to include the appendages on each side and the lower part of the body of the uterus. After the tissues had been divided with the cautery and the edge well seared I thought I had accomplished a great feat, so thin was the compressed and cooked strip of tissue between the blades of the clamp. I now carefully removed the clamp, and had scarcely time to admire the result of my handiwork when an ominous bulging made its appearance behind the narrow strip of compressed tissue on the top of the stump, the two layers of peritoneum—for such were its component parts—

burst asunder, and blood gushed forth copiously. I at once seized the uterus, and drawing it forcibly upwards, in great measure controlled the bleeding. Securing the edges of peritoneum of each broad ligament with forceps, I applied a chain of ligatures of which the first secured the right broad ligament, the second link encircled the uterus about the level of the internal os—rather below it—and the third secured the left broad ligament. The first and third were passed through the broad ligament as close to the side of the uterus as possible with the view of enclosing the uterine artery in the outer loop, and another ligature encircled the whole. The bleeding was now apparently completely under control. The uterine tissues had been severed clean across as if by a knife, and bulged outwards cap shaped. I then drove the knife through the stump from side to side, and cutting outwards towards the edges, anteriorly and posteriorly, removed a wedge-shaped piece, thus forming an anterior and posterior flap. These flaps I stitched together with closely applied interrupted sutures. When these were all tied the stump presented quite a blanched appearance. Finally, with the view of the more effectually sealing up the wound, I attached the stump with three sutures to the lower angle of the abdominal wound. I was satisfied with my work. But this satisfaction was of short duration, for symptoms of peritonitis set in, and my patient died on the fifth day. I may here remark that the operation was performed with “full Listerian precautions.” *Post-mortem* examination revealed the fact that there had been some oozing from between the flaps of the stump. Before death, moreover, there was evidence of imperfect control of the bleeding in the appearance of a sanguineous discharge from the vagina. An examination of the uterine remains showed that a No. 6 catheter could easily pass along the canal beyond the line of ligatures, the site of which was marked by a thin red line on the mucous membrane.

This was a lesson whose teaching I have not forgotten and I have never repeated the operation.

Now I will ask Professor Sinclair to point out to me in

what particular, beyond the stitching of the stump to the parietes, this operation differs from that devised by Schroeder. For my part I see no difference in the principle and very little in details. Probably had I used a drainage tube the result might have been different. But speculation in this direction would be in vain, and experience has led me in a different direction.

With the exception of Péan—and I must say his work was not then known to me—no one, previous to that date, as far as I knew, had attempted the systematic treatment of this disease. I think I am well within the mark when I say that in this country a very large proportion of the operations were the result of error in diagnosis. This will be evident from the fact that at the meeting of the British Medical Association at Cambridge, in 1880, Spencer Wells reported 60 cases in which the operation was completed in only 34 and with a mortality of about 53 per cent. In the remaining 26 cases the operation consisted of little more than a correction of the diagnosis.

It was under these circumstances that I took up the subject. In the course of the intervening years I have performed the operation of hysterectomy—under which name, for the sake of brevity I include all cases—in 159 cases, and I trust that fact alone will be regarded as a sufficient apology for my holding more or less decided views on the subject. It cannot be said that I have been unmindful of the labours of others, for I have followed the literature of the subject with absorbing interest. Nor can I justly be charged with egotism when I say that I am responsible for the introduction of the extra-peritoneal method by means of Kœberlé's *serre-nœud* into this country.

What I now regard as a piece of false modesty has obscured this part of the subject. Adopting the principle of that instrument—which by the way Kœberlé only applied to the ovarian operation or pedunculated fibroid—I modified it according to my own requirements. But I felt that I ought not to deprive him of his due credit by attaching my own

name to it. Hence it has always gone by his name, as far as I am concerned, though others have not hesitated to effect changes—I will not say improvements—in small details, and then claim the credit of the invention by attaching their names to it. I gather from a recent address, of which Professor Sinclair has had the courtesy to send me a printed copy, that he does not seem to be aware of the history of the instrument, for I find these words: “Among the best known operators the men who see their way to go through the largest amount of material are, I presume, Mr. Knowsley Thornton and Mr. Lawson Tait. They stick to the barbarous appliance called Kœberlé’s *serre-nœud*. Its application merely consists in constricting some part of the uterus, *below the tumour if possible, with a piano wire*, and tightening up the rope *from hour to hour* or from day to day until the gangrenous mass falls off.” Here we have the exaggeration of the German cheese repeated. I say, then, that it is evident that Professor Sinclair has a very imperfect acquaintance with the literature of this part of the subject, though he appears to have given the most careful attention to “One Word for Schroeder’s Method,” occupying seventy-two pages of type, not one syllable of which could be omitted without disadvantage. I say, moreover, that his description is not a fair presentation of the case, and I think I have a right to complain that he has not attacked the man who was the first to introduce, and who has continued to advocate, the method in this country, and that he has not given him at least the credit of the opprobrium attaching to it. Nor has he taken any notice of the improvement effected in the material of which the *serre-nœud*, wire and pins are made. He seems to be unacquainted with the Delta metal—of which I show you examples, and of which the advantages are the non-oxidisable nature of the metal, and the flexibility combined with strength of the wire—for he still speaks of piano-wire. Nor does he appear to have noted the methods I have devised for meeting exceptionally difficult cases.

It will now be profitable to look at the evidence with which

Professor Sinclair supports his thesis. What do I find? I find that he has had twelve cases, of which only one died; that in all of them hæmorrhage in varying amount—in some, serious—took place, and that but for the drainage tube, disaster must have followed in the majority of them, if not in all. But I do not find that they presented any special difficulties in the application of the method—as would have been met with in so many of the cases I have reported to this Society. On the contrary, they appear to me to have been very favourable, some at least being pedunculated tumours. Well, I admit that one in twelve is a very good result, and I congratulate him on it, because I perceive that in more than one case he narrowly escaped disaster. In one case I find special mention of necrosis of the stump. Had it been a case of the extra-peritoneal treatment, I presume he would have called the process “gangrene.” But I find another case referred to later on in which death occurred from peritonitis, of which he acquits the mode of operation. If I were to apologise in this way for many of my deaths, I should be able to reduce my mortality at least one half. Therefore I must take his mortality as two in thirteen. For the present I exclude the case of amputation of the pregnant uterus, for the conditions are so very different, and one case goes for very little.

I now appeal from Schroeder and his disciples to Martin. Everyone who has seen Martin operate must have been struck with his remarkable skill. I am vain enough to fancy that I know a little about operating, but I confess that that remarkable man astonished me at once with the dexterity and precision of his manipulations. Well, Martin has given extensive trial to the intra-peritoneal treatment—I think I may affirm more extensively than any other man. What has been the result? It is this, that he has been compelled to abandon it, and to seek for “a more excellent way.” That he hopes to find in complete extirpation of the uterus—which, by the way, is an extra-peritoneal method. I await his results with much interest. So far, I have not been tempted deliberately to follow him, though I came very near it in a recent case of

which I showed the specimen at a recent meeting of this Society, in the form of a large fibroid undergoing sarcomatous degeneration. When Professor Sinclair shall have done as many, or even half as many operations as Martin, I venture to predict that he too will give up the method. And I have some ground for this conviction, for in a passage—in which he gives himself entirely away—he admits that there are some cases to which the method is not applicable. As I have already pointed out, the author's cases were all favourable for the application of this method, but when he shall have had a long series of cases I feel confident that he will find the exceptions more numerous than he at present dreams of, unless he makes a careful selection—a proceeding that would at once vitiate his position.

Professor Sinclair told us, on the authority of Hofmeier, that Schroeder performed myomectomy in his own way 164 times, with a mortality of 30 per cent. In a previous part of his paper he told us that in 1884 Schroeder “gave the results of 66 operations showing a mortality of 30 per cent.” . . . But he stated at the same time that in his “last 40 cases he lost 22 per cent. and in the last 14 only 1 patient died.” But I will point out that means that 2 in 15 died, a fact which alters the whole complexion of the question. In my series of supra-vaginal hysterectomies there are two series of 15 consecutive successful cases; but I draw no deduction from them.

As I have already said, I have operated 159 times—not counting yesterday's case, in which the temperature and pulse are to-day normal—with the following results :—

	Cases.	Recoveries.	Deaths.
Intra-peritoneal treatment	9	2	7
Extra-peritoneal pedunculated tumours ...	18	18	—
Extra-peritoneal supra-vaginal hysterectomy	129	107	22
Incomplete operations	2	—	2
Incapable of classification	1	—	1

Thus there are 147 cases treated by the extra-peritoneal method with 22 deaths—under 15 per cent.—and had I been more careful in the selection of my cases I might have avoided several deaths from chronic Bright's disease. But I have

always felt it to be my duty to give patients threatened with death the benefit of the doubt, without one thought given to the question of statistics.

Since the paper has come into my hands I have come across what appears to me a most extraordinary statement. Amongst the objections offered to the intra-peritoneal method of treatment, Professor Sinclair treats first of the danger of hæmorrhage, both immediate and remote, and he says, "as for remote hæmorrhage, owing to shrinkage of tissues, cutting through of ligatures and sutures, and so on, they are all *a priori* objections and contradicted by experience." I say they are not *a priori* objections, and I go further and say they are confirmed by experience and by Professor Sinclair's own experience.

I have by no means exhausted the matters open to debate, but I fear I have exhausted your stock of patience, and I will conclude for the present by saying that Professor Sinclair has not proved his case; he has not shown that the intra-peritoneal method has yielded better results than the extra-peritoneal, nor has he given us any ground for his belief that the former will supersede the latter. "Schroeder's confident reference to victory was premature in 1882," as it would be premature in 1893, and Professor Sinclair's prediction that "there can be little doubt in the mind of any gynæcological surgeon of experience who watches the signs of the times, that only a few short years can now elapse before Schroeder's prediction becomes accomplished fact" has as little to rest on as the prediction of 1882.

Dr. CULLINGWORTH, rising at the President's invitation, said that he had come to the meeting as a learner; he had had no experience of the intra-peritoneal, and not much of the extra-peritoneal, operation, so that his opinion on the relative merits of the two operations was not perhaps of much value. He confessed that he had felt towards the extra-peritoneal method much as Dr. Sinclair had done; it had not appeared to him to be a good surgical procedure, and he had cherished the hope that time would show "a more ex-

cellent way," and that the sloughing stump, inevitable in that method, might be done away with. He was, however, open to conviction on the point. With regard to Dr. Bantock's advocacy, he thought it would have been unnatural if he, with his large experience, had not advocated the operation that in his hands had proved so successful. In fact, he did not think it altogether wise for an operator who had acquired skill and obtained good results by one method to be too ready to make a change. Some seemed to think that they must adopt every new method that comes out, but they would never, in this way, attain to the greatest dexterity. There were one or two questions he should like to ask Dr. Sinclair. It was made a great point by Milton, of Cairo, in the *Lancet*, that the trunk of the uterine artery should be seized and tied separately; he (Dr. Cullingworth) had not had Dr. Sinclair's paper in his hands very long, but in looking through it he did not see that special mention was made of the uterine artery; was Dr. Sinclair content with the extra ligature applied at the inner or uterine end of the broad ligament? He believed that Milton, in his later cases, did not secure the uterine artery in its continuity, but simply seized and tied it if he saw its gaping mouth. Again, as to the *technique* of the operation, what was the depth of the flaps that were cut? And what was meant exactly by the description of the method of passing the ligature in the flaps? No doubt, it would be easy enough to follow if one could see the operation, but he thought the description was not quite clear on paper.

As the operation of oophorectomy had been referred to pretty fully in the paper, he thought that a few remarks on this subject would not be out of place. He had had a fair experience of the operation, yet he looked on these cases with much anxiety; they never seemed in his hands to go on straightforwardly to convalescence, and he would rather perform abdominal hysterectomy twice over than do one oophorectomy. Possibly this experience was peculiar to himself. He had lost one or two of these cases in a painful

manner, and had known the same thing happen to others. For example, what could be more painful, both to the operator and to the patient's friends, than for the convalescence to proceed apparently normally for a few days, and for the patient to then succumb suddenly to embolism? Another painful accident was the development of intestinal obstruction. Now to remove the ovaries, some manipulation of the uterus was almost invariably necessary, especially when this organ had become rotated on its axis, and the ovaries had fallen low down in the pelvis. And if the fibroid filled the pelvis, it was often necessary to disarrange the normal relations of the tumour to the intestines, in order to reach the ovaries; and one of the deaths he had had was a case in which, probably from these manipulations, a loop of intestine had slipped down behind the uterus and got nipped. He re-opened the abdomen to deal with the obstruction, but the patient was even then very much collapsed, and died before leaving the operation room. So, although oophorectomy was to be preferred in some cases, he did not regard it as an altogether satisfactory way of dealing with fibroid tumours, and he should not be sorry to see a method of total removal of the uterus introduced which should put oophorectomy out of the field. But at present we had no safe procedure to substitute for it. With regard to electrical treatment, he was not so sanguine of good results as Dr. Sinclair, but felt he had not sufficient experience to put his opinion against Dr. Sinclair's.

Mr. REEVES briefly commented on the paper.

Mr. BUTLER-SMYTHE thought that Dr. Cullingworth had hit the right nail on the head, and that Mr. Reeves had driven it home—that is, that the important point was the tying of the uterine artery. When Dr. Bantock operated he tied all the broad ligament, and yet a good deal of hæmorrhage came on. He did not see how the sutures in the flaps could control the hæmorrhage. He could not agree that it was an easy thing to pick up the vessels in the flaps.

Dr. HEYWOOD SMITH said they had just heard in Dr.

Bantock's able speech an apology, as it were, for an operation now fast growing into disuetude, and he agreed with him that no valid comparison could be drawn between the operations of myomectomy and of ovariectomy. He thought that the use of the cautery was quite inapplicable to the uterine tissues. He quite approved of the term "scientific," as that meant knowledge, and thought that it might properly be applied to such methods as had been found, in a variety of conditions, to be most suitable for dealing with these cases. This was, as a matter of fact, the common acceptance of the term: a number of facts were gathered from time to time, and the proper marshalling and application of these facts might fairly be designated "scientific" procedure. The great question, after all, was, how best to operate for the safety of the patients—not what new methods could be introduced. In the removal of large outgrowing tumours from the uterus, the intra-peritoneal method might be resorted to without much risk. The difficult question was how to remove a large uterus when the whole was involved in tumour growth. Martin's method was far from being devoid of risk. He quite agreed with Dr. Sinclair as to the treatment of the cervical canal; that it ought not to be obliterated, for when we have the flaps made and the canal open, it is the only safety-valve we have. Moreover, as the mischief, if any occur, takes place below the peritoneal covering, and as this unites rapidly within two or three days, there was no danger to be apprehended from the peritoneal cavity as long as a free outlet was provided along the cervical canal and vagina. He thought that the large number of ligatures sometimes employed was absurd; the method he recommended was to pass a buried purse-string suture of chromicised catgut round the stump inside the peritoneum, and to then sew the peritoneum over the raw surface with Bishop's sutures. If the uterine arteries were tied or obliterated, the hæmorrhage was stopped; and he had not found it difficult, as a rule, to catch the arteries in the angles of the flaps. He did not think the drainage tube

was necessary in every case, for when the lacing up was done sufficiently tightly, he had not found that there was enough hæmorrhage to make it dangerous to leave out the tube. He felt persuaded that in time the intra-peritoneal—or rather the sub-peritoneal—would oust the former method.

Dr. BOXALL thought the point of main importance was that of hæmorrhage. Considering the amount of loss in most cases, and the need for drainage afterwards, was enough care taken with the ligaturing? Why not ligature the stump itself, as well as the main vessels? In one case where he was not able to ligature the pedicle—in ovariectomy, owing to twisting—he made a pedicle of the uterus itself. Having secured the vessels, he then shaped a long anterior and a short posterior flap. The uterine stump was next secured and tied tightly, and the flaps were then brought together over the stump with a continuous suture. By this means the hæmorrhage might be checked even though the main vessel might escape; and this would give the peritoneum time to unite, so that there would be no cavity into which hæmorrhage could take place.

Dr. LEITH NAPIER directed attention to the description of the third stage of the operation. He presumed that it meant that the tumour was enucleated when it did not involve the main part of the uterus itself. Perhaps Dr. Sinclair would give them some further information on this point.

Dr. PURCELL briefly commented on the paper.

The PRESIDENT said that he had performed the sub-peritoneal operation twice—once successfully. The unsuccessful one seemed at the time to be the more successful, for the tumour was easily removed and the uterine arteries readily ligatured. The wound was closed, and everything looked promising, but the patient died suddenly from collapse due to hæmorrhage. In the other case the tumour was larger. He removed the uterus in much the same way as described by Dr. Sinclair, and the patient made a good recovery. He thought that two points had not had enough stress laid

upon them. In nearly all the cases he had seen he had been struck with the great shrinkage of the flaps, and, as a rule, enough allowance was not made for this. The posterior flap had a tendency to contract so as to come in close contact with the rectum, and there was a risk of this part of the bowel being punctured during the suturing of the peritoneal flap. In the same way the bladder was in danger during the suturing of the anterior flap. The flap, therefore, should be made high up. It seemed to him that it would be better to strip off the peritoneum, and not encroach on the uterine tissue ; moreover, when stripped down far enough, the uterine artery could be easily seized and tied. He had been disappointed that no mention had been made of the American method of dealing with the stump, viz., by opening the vagina and turning in the stump so as to bring the raw surface into the vagina, and then clamping it. By this method any hæmorrhage that might occur was at once detected ; otherwise the pulse was the only indication that hæmorrhage was going on. Hæmorrhage might occur under the peritoneum, as in his fatal case. He thought that from the scientific point of view both methods advocated fell short of the ideal operation, viz., removal of the whole uterus — whether by one or two operations was a matter of detail. If the tumour was small it could be done by one operation, as by the method of Byrne, in America. If large, the combined abdominal and vaginal method could be employed, as practised by Martin in America and Martin in Berlin. In all these operations time was an important matter, and lacing up the peritoneum occupied an appreciable time. A way of getting over this had suggested itself to him, but he had not seen it suggested, nor had he practised it himself, viz., in vaginal hysterectomy the summit of the vagina was not usually closed up, and no harm resulted ; and he thought that instead of lacing over the peritoneum it might be a good plan to pass three or four long sutures through the peritoneal flaps in such a manner as to invert the peritoneum

into the vagina, the long suture not being tied but passed through a drainage tube which has been inserted into the vagina.

Dr. Bantock had not referred to the dangers of the extra-peritoneal method, which were the following:—(1) The bladder had sometimes been caught up in the *serre-nœud*. He had seen this accident occur even in the most skilful hands. (2) The intestine had been similarly caught, and in such a case a fæcal fistula might result. It was true that such a fistula did not usually give rise to serious trouble—as he had found in a case of his own—but none the less was it an unpleasant accident. (3) Intestinal obstruction. He believed that this was due to adhesions, and that it was a much more common accident than was generally supposed.

Dr. SINCLAIR replied to the various points raised in the discussion, and the Society adjourned.

REVIEWS, &c.

THE *Birmingham Medical Review* for December has a clearly written and practical article on the after treatment of cases of abdominal section, by Mr. Christopher Martin. The only point on which any practical gynæcologist will at all differ from him is the limit of time after operation during which he starves the patient. He fixes this at forty-eight hours as a hard-and-fast rule, but there can be no doubt that some cases become so exhausted after a few hours' abstinence from food that it would be impossible to keep them for so long entirely without nourishment of some sort.

The same number of our contemporary has a valuable and suggestive article on the Etiology of Cancer, by Mr. T. Law Webb, who quotes facts which certainly seem to support his chief contention—that cancer is more of a contagious disease than is usually supposed.

In the *Bristol Medico-Chirurgical Journal*, Dr. L. M. Griffiths gives the following very useful interesting summary, of the historical evolution of symphysiotomy of the pubes in protracted labour:—

“Writing on ‘The Pelvic Symphyses in Pregnancy and Parturition,’ Dr. W. J. Conklin¹ supports the conclusions of Luschka, that these symphyses are true joints provided with synovial membranes, and capable of limited motion. Under the stimulus of pregnancy the softer structures of the symphyses undergo a general relaxation, which necessarily leads to a slight separation of the articulating bones. Dr. Conklin does not discuss the question of the mobility of the sacro-vertebral and sacro-coccygeal joints, as he believes it is ad-

¹ *Amer. Journ. Obst., Nov., 1892.*

mitted by all obstetricians. He adduces a goodly array of evidence in support of the view that there is during labour a considerable separation of the sacro-iliac symphysis and of the pelvic joints. Admitting that separation of the pelvic joints does take place to a greater or less extent in many, if not all, women at times, its value as an obstetrical factor depends wholly upon the extent of the separation. It becomes difficult to decide whether in some of the recorded cases the relaxation was normal or pathological. Probably the cases in which the separation was considerably over an inch were of the latter class. Dr. Conklin gives details of some of his own cases, in which the relaxation exceeded physiological bounds, and caused pain and disability, partial or total, of the lower extremities. He infers that many labours which, contrary to expectation based upon former experience, have proved to be short and easy, have been so on account of considerable relaxation of the symphyses during pregnancy, by which the pelvic circumference has been notably increased.

"In the English 1890 edition of Winckel's 'Midwifery,' a fervent wish is expressed that the operation of symphysiotomy should be for ever entombed. Recent experience shows that this wish is now farther than ever from being attained. The operation of separating the pubic bones at their junction with one another, usually called symphysiotomy,¹ was introduced before the Royal Academy of Surgery of Paris in 1768, by Sigault, who hoped that it would take the place of Cæsarean section. After some adverse criticism, the operation became for a time a popular one. It then became discountenanced, and till its partial revival in Italy, about twenty-five years ago, had passed out of obstetric practice. It seems likely, however, that the operation will become a recognised one, and it promises under antiseptic precautions to be a remarkable success. The credit of this is mainly due to Prof.

¹ Dr. W. S. Forbes (*Med. News*, Oct. 29th, 1892) rightly points out that in the sense used the word has no etymological justification, as it does not indicate the particular symphysis which is to be divided. He suggests "pubeotomy."

Morisani, of Naples. Dr. Robert P. Harris gives¹ a full review of the history of the operation, and its mode of performance. From January 1st to Oct. 8th, 1892, there were fifty-two operations, with one death.² In the cases of recovery the unions were good, and there was no resulting lameness. Seven children were lost. Only one was born dead. Three were born in an asphyxiated condition, and the rest died during the first three days. If the child did not survive beyond the first three days it was counted as lost. Out of 52 children, 45 lived; 51 were born alive.

"A. Pinard³ considers that with antiseptics the operation is not only devoid of danger, but is beneficial. He says that the pubic bones can be separated to the extent of six centimetres, and that the operation itself is not difficult. Pinard is of opinion that in many cases this operation should take the place of embryotomy and of Cæsarean section, that the lives of many women and children may be preserved by it, and the practitioner be saved the cruel necessity of crushing the skulls of living infants.

"Dr. W. T. Lusk, commenting on Dr. Harris's paper, said that it gave him great pleasure to find that symphysiotomy had been of recent years so far perfected that it gave a lower maternal death-rate than craniotomy.

"Dr. B. C. Hirst⁴ gives a summary of the statistics of the operation, which down to 1858 had a maternal mortality of 33 per cent; from 1866, when it was again practised, till 1886 the mortality was 24 per cent. Dr. Hirst says the first operation in America was performed by Dr. Charles Jewett, of Brooklyn, on September 30th of this year. He considers the modern revival of the operation to be the most important advance in obstetric surgery since the general adoption of abdominal section in early extra-uterine pregnancy. Dr.

¹ *Amer. Journ. Obst.*, October, 1892.

² *Med. News*, November 5, 1892, p. 528.

³ Abstract in *Amer. Journ. Obst.*, July, 1892, p. 134, from *Annales de Gyn.*, Feb., 1892.

⁴ *Med. News*, October 15, 1892.

Hirst gives the clinical records of some typical cases, including one in which he operated at the University Maternity of Philadelphia. The choice was between Cæsarean section, craniotomy, or symphysiotomy. Mother and child did well. Dr. Hirst gives details of the operation, which he considered should be performed with Galbiati's knife. A fuller account of the mode of operation is given by Dr. Harris. Dr. Anna E. Broomall performed a similar operation at the Women's Hospital, Philadelphia, on October 7th. On October 14th mother and child were both doing well. In the discussion which followed the reports of the cases of Dr. Hirst and Dr. Anna Broomall, it was pointed out that the introduction of antiseptics had revolutionised the operation. Its performance has now received the additional sanction of Charpentier and Porak of Paris, Leopold of Dresden, and Freund of Strassburg, all of whom have had successful cases.

"Porak's first case is specially instructive. After making all justifiable attempts with the forceps, he failed to deliver the disproportionately large child. He did not think that the case was one for Cæsarean section. He opened the symphysis, put on the forceps a second time, and accomplished the delivery without trouble. The woman recovered, and the child lived.

"On November 22nd, Dr. W. J. Smyly performed the operation at the Rotunda Hospital, Dublin. This is said to be the first symphysiotomy in the United Kingdom since 1782. Nine days after the operation mother and child were doing well.¹

"In the light of these recent successes, and of the fact that symphysiotomy has been chosen as a subject for discussion at the International Congress, it is of interest to note the views of the older obstetricians on the question. William Hunter, arguing from experiments on the cadaver not realising that after death the elasticity of the ligaments soon becomes lost, stated that the symphysis pubis could not be separated to the extent of an inch and a-half without lacerat-

¹ *Brit. Med. Journ.*, Dec. 3, 1892.

ing the sacro-iliac ligaments. Ryan cited 'unanswerable objections to this highly dangerous and unwarrantable operation.' Ramsbotham says: 'The operation is not justifiable in cases of the more deplorable distortions of the pelvis, nor in the smaller degrees of diminution, because in them craniotomy can be performed.'¹ Matthews Duncan believed that there was a future for the operation, and entered a protest against the unfounded calumnies which had been directed against it by British authors, who 'have raised difficulties about it which are sufficient to deter a superficial inquirer from its consideration.'² He quotes the words of Denman, who, although he spoke cautiously about the operation, did not 'mean to insinuate a wish, or advance an argument in favour of this operation in the cases for which it was originally proposed.' So quickly has the change of opinion come about in reference to this operation, that no longer ago than 1889 Dr. Robert P. Harris, now one of its most enthusiastic advocates, said that 'symphysiotomy cannot take the place of the Cæsarean section and its modifications except to a very limited extent. It has a range of only a fraction over half an inch.'³

In this connection the following article by Dr. R. P. HARRIS, in the *New York Medical Journal*, is of much interest.

"At the present writing the improved Cæsarean section undoubtedly occupies the first position in the estimation of obstetric surgeons. The Porro-Cæsarean operation, when introduced in 1876, gave promise of great popularity because it was less fatal in Europe than the classic method. But antiseptic or aseptic precautions, and multiple suturing of the uterus with deep and superficial stitches, generally of silk, have revolutionized the old method and largely overshadowed that of Professor Porro, so that now the latter is outnumbered

¹ "Manual of Midwifery," 3rd ed., 1831, p. 598.

² "Obstetric Medicine and Surgery," 2nd ed., 1844, p. 294.

³ "Mechanism of Natural and Morbid Parturition," 1875, p. 158.

as two to one. The Cæsarean operation with exsection of the uterus is of great value as an alternative to the less destructive method in cases where the condition of the endometrium endangers the life of the woman from sepsis. To have the patient escape the immediate and remote inconveniences of an adherent pedicle, has been the desire of many operators, and the basis of many fatal experiments, until now the desired end, with a much diminished risk, has been obtained. The next method of delivery under the knife is the subject under discussion. Some of its advocates are inclined to maintain that its limits of application prevent it from becoming a substitute for the improved Cæsarean operation, but this must be regarded as an error. An examination of the records of Leipsic shows that a large proportion of the sections were made on women whose pelvic conjugate ranged from $2\frac{3}{4}$ to $3\frac{3}{4}$ inches. If the Cæsarean operator were to take only the cases that were below the pubeotomy limit of $2\frac{1}{2}$ inches, he would have very few subjects for his form of delivery. The Cæsarean operation is performed in the interest of both mother and child in cases where craniotomy is dangerous to the former, and in the interest of the child mainly in cases where a long conjugate would make craniotomy a safe mode of delivery to the mother. Symphysiotomy is especially antagonistic to craniotomy, and its low grade of mortality renders it an inviting and simple substitute for it. It is a much less formidable procedure than cœlio-hysterectomy, and may be undertaken by men of less surgical experience with good results. Craniotomy is a legacy of a barbarous age, and still has its advocates. The armamentarium required for symphysiotomy is very simple—viz., a scalpel, a Galbiati's probe-pointed sickle-shaped bistoury, a metallic catheter, silk ligatures, gauze, and cotton. After these have been sterilized the parturient woman is to be placed on her back, at the side of the bed, with her knees drawn up and separated; the mons veneris and labia majora should then be shaved, and the suprapubic region, the vulva, the perineum, and the vulvo-

vaginal canal disinfected. The depth, thickness and direction of the symphysis having been ascertained, and the fossa in its superior edge which marks the point of union of the two pubic bones sought for, then the inferior, anterior, and posterior faces of the pubes should be examined. The female catheter should be inserted and given into the hands of an assistant, that he may depress the urethra from the pubic arch and at the same time carry it to the right side to save it from injury. A vertical incision is then to be made through the skin and fat above the pubes, about $2\frac{3}{4}$ to 3 inches in length, ending about three-quarters of an inch above the symphysis, cutting the tissues gently and passing in a line toward the left of the clitoris, so as not to injure that structure. For a short space the recti muscles should be severed from their attachment to the two pubic bones, the left index finger introduced into the opening, and the retropubic tissue separated. Then the palmar face of the finger should be applied directly against the posterior face of the symphysis, and with it the inferior margin of the articulation hooked, while the assistant attends to the catheter as stated. The operator then introduces the Galbiati bistoury and hooks it around the articulation, cutting the inter-osseous ligaments and cartilage from within outward and from below upward. When the section has been made it may be known by a creaking sensation and a separation of the bones from $1\frac{1}{4}$ to $1\frac{1}{2}$ inches. After this step the wound is to be covered with the gauze dipped in bichloride solution (1 to 4,000), and the extraction of the fœtus attended to, undue separation of the two innominate bones being antagonised by pressure with the hands of the assistants. During the passage of the head the amount of pubic separation should be ascertained, the vagina sprayed, and, when the placenta is expelled, six or eight interrupted silk sutures inserted into the edges of the wound, which should be dressed with sublimated cotton (1 to 2,000), and the pelvis and lower extremities should be bandaged. In a tabular record of forty cases of symphysiotomy, the hospital patients, numbering thirty, and the private patients ten, the only fatal case died

of metroperitonitis, which was probably puerperal and not traumatic. I have been unable, after very careful research, to find any case resulting in failure of union of the pubes, or producing permanent lameness."

The *Edinburgh Medical Journal* for October, 1892, contains a valuable article by Dr. Charles Templeman, on 258 cases of suffocation of infants. He shows the following interesting facts; 32 per cent. of the children were illegitimate; 46 per cent. of the whole number died between a Saturday night and the Sunday morning, a coincidence which he clearly considers due to the influence of alcohol: and 62 per cent. of the cases occurred between October and March. The greatest mortality, more than 75 per cent., occurs in the first three months, the risk diminishing with every subsequent month, and apparently disappearing after the ninth month.

Dr. ROHÉ last year brought before the Clinical Society of Maryland, U.S.A., the records of four cases of puerperal Insanity, who had been in his asylum for periods varying from one to six years, and from whom he had removed the uterine appendages, for disease. Two were speedily restored to mental health, and the other two were greatly improved. It would seem that all four were extremely obscene in their language before the operations, and became extremely chaste after their ovaries had been removed. Is this *post* or *propter hoc*?

In conclusion, Dr. Rohé said: "I believe that in these four cases we have a contribution to the ætiology of puerperal insanity. I believe that puerperal insanity is a phase of insanity that is due to absorption of septic matter, and that when it is recurrent, it is the result of some reflex irritation due to an inflammatory condition of the pelvis or pelvic organs. All the cases I have examined show some lesion of the genital canal remaining from parturition. The result of the treatment in these cases show this: that if cases are taken before structural alterations have taken place in the brain, before dementia has come on, restitution of the mental faculties can

generally be accomplished. There is another advantage, I believe, in this radical mode of treatment of this condition ; that is, that a woman whose appendages have been removed, will never have another attack of puerperal insanity, at all events."

The *Edinburgh Medical Journal* for February has an interesting article by Dr. HALLIDAY CROOM upon premature sexual development in relation specially to ovarian tumours. The case which forms the basis of the paper is well worth recording in full.

"Her history was as follows: She was a child of 7 years of age, suffering from a large abdominal tumour. Previous to March of this year she had been perfectly well, presenting no abnormal symptoms whatever. In this month she was raped by a boy on several occasions. Immediately thereafter she had a profuse hæmorrhagic discharge from the vagina, which continued almost uninterruptedly until her admission to hospital in the month of November, viz., seven months. Shortly after the rape her abdomen began to swell and gradually enlarged, until on her admission to my ward she had a tumour about the size of a seven months' pregnancy, with the following measurements, —vertical $7\frac{1}{2}$ inches, transverse $7\frac{1}{4}$, left oblique 8, right oblique $7\frac{1}{2}$.

"The impression on her admission to hospital was, that the tumour was a pregnancy, notwithstanding her extreme youth, and this was very considerably emphasised by the fact that her mammæ were largely developed, that there was a well-marked linea nigra passing from the umbilicus to the pubis, that there was a copious development of hair over the mons veneris and the external surface of the labia majora, and that a well-marked bruit could be heard on both sides of the tumour.

"The tumour was freely movable, tense, and firm, but had apparently no intimate connexion with the pelvis. This want of connexion with the cavity of the pelvis, as well as

its absolute solidity, notwithstanding the apparent indications otherwise, decided me against the possibility of pregnancy. Under anæsthesia, therefore, I examined the patient *per vaginam*, and found the remains of the hymen thick, but completely penetrated, the vaginal walls being smooth, and the cervix enlarged, very soft, and somewhat patulous. The sound was then introduced into the uterus, which was found to be enlarged, being slightly over three inches. This manipulation caused free hæmorrhage. The possibility, then, of pregnancy in a bi-horned uterus naturally presented itself; but a prolonged examination of the patient—by no means an easy matter in a child—satisfied me that the tumour was unconnected with the uterus, as this organ could be mapped out bimanually, and the conclusion arrived at was that it was a pediculated ovarian.

“In considering the question of pregnancy the pelvic measurements were taken, and found to be—

Interspinous,	8 inches.
Intercristal,	8 $\frac{1}{4}$ „
External conjugate,	6 $\frac{1}{4}$ „

It is specially noteworthy that the development of her pubic hair, the uterine hæmorrhage, and the growth of the abdominal tumour, as well as the appearance of the linea nigra, were all phenomena entirely subsequent to the interference with her genital organs, and therefore apparently consequent upon her rape. In the same connexion it is well to observe the mother's statement, that the mammæ were enlarged to such an extent at birth that the development of mammary abscesses was feared. This goes far to show that the child had a tendency to precocity in development which only required the stimulus of the repeated sexual acts to mature the activity both of the uterus and ovaries. Her mental development was rather under average.

“The operation was undertaken on the 25th November. On cutting through the abdominal parietes the bluish surface of the tumour at once indicated its true character. There was some degree of ascites. The tumour was aspirated, but

only a small quantity of sero-sanguinolent fluid was withdrawn. There were no adhesions, and the tumour was perfectly free in every direction. The abdominal incision had to be enlarged up to within $1\frac{1}{2}$ inches of the ensiform cartilage, owing to the fact of the tumour being absolutely incompressible. It was removed through the abdominal wound, and found to be attached to the left side of the pelvis by a long pedicle, which was secured in the ordinary way. The Fallopian tube was greatly distended and tortuous. The ovary on the opposite side was quite small and undeveloped. The tube on the same side was hypertrophied. The uterus was enlarged, corresponding to the dimensions indicated by the sound previous to operation. The abdominal wound was closed, and the child made an uninterrupted recovery.

"The tumour weighed over six pounds. Its surface was smooth and soft, and its walls were very vascular. In its substance were a number of cysts separated by loose septa, which were very fragile. The cystic contents were gummous or gelatinous and transparent fluid. The microscopic appearances were those of a rapidly growing round-celled sarcoma with mucoid degeneration of parts.

"On the 11th January, 1893, and subsequent to the reading of this paper, the child was examined under chloroform before dismissal from hospital. The mammary outline is much less distinct, and the dark areola has somewhat faded. The linea nigra is less distinct, but there appears to be rather an increase of hair on the pubis. The labia minora, which had been large and dark, have now assumed a normal size and colour, and are less gaping; while the vaginal mucous membrane, previously dark and injected, has become of a normal pinkish colour. On vaginal examination the cervix is found to be small and closed, and to have resumed its infantile form. The sound now only enters to the extent of two inches, being a full inch less than before operation, and there is no hæmorrhage from the vagina."

In connection with the foregoing case, that related by Dr. LAWRIE in the *Bristol Medico-Chirurgical Journal* for last September is not without interest. He removed an ovarian

tumour weighing more than twenty-five pounds from a girl of 16, whose abdomen had been enlarging for more than two years previously.

The same number of our always interesting contemporary contains an interesting article by Dr. J. G. SWAYNE on forceps delivery during the last fifty years. He notes that in the early part of his career, ignorant midwives and unskilful practitioners were much more common than they are now, a fact which there is much other evidence to prove, and which not only exhibits the advantages which have followed the higher midwifery education demanded of late years by the examining bodies, but is a useful commentary upon the desire now expressed in certain quarters to legalise the employment of semi-educated midwives. Dr. Swayne remarked that one of the most striking characteristics of modern midwifery was the more frequent use of the forceps in difficult labour, a change of practice which his own experience, as well as that of others, proved to have been attended with the best results. It was far otherwise, however, during the first decade of his practice, from 1842 to 1852. The forceps was then used very rarely, and with extreme caution he might almost say timidity.

It is significant, therefore, that the number of forceps operations performed by him during the first decade of his practice is sufficient proof of the disinclination to use the forceps (and especially the long forceps), which was then so prevalent. He used the forceps in only seven cases of difficult labour in a total of 308 deliveries between the years 1842 and 1852. The mothers all did well; but one child had been dead for some hours before birth, and another died of pyæmia about a month after. The head was much compressed by the forceps before birth. The forceps used in every case was Denman's short straight one. The blades of this instrument approached too near together, and it had consequently a great compressing power. During this decade he had to resort to craniotomy in two cases, which he feels convinced might now have been successfully

delivered by the long forceps. In the next decade, from 1852 to 1862 he used the forceps twenty-eight times, just four times as often as in the previous decade, or in a total of 672 cases, 35 forceps deliveries. Twenty-eight were primiparæ, and only seven multiparæ. This shows, what would naturally be expected, that it is in first labours that the forceps are so especially useful. From 1862 to 1872 he used forceps in 72 cases out of 495 deliveries. From 1872 to 1882, in 67 cases out of 609 labours; and from 1882 to 1892, in 47 cases out of 243 deliveries. In other words, in the first 20 years the forceps were used only in one case in 18, in the last 20 years in one case out of 7½. The figures are very interesting as showing the manner in which the forceps have grown in professional favour during the last half century.

FEVER DURING LABOUR.

WINTER (*Zeitschrift für Geburtshilfe und Gynäkologie*, Band xxiii., Hest 1, quoted in the *Univ. Med. Magazine*, Feb., 1893) calls attention to the fact that the uterus, like any other muscle, produces by its contractions energy, and engenders heat, which at first is only local, but finally becomes general through the circulation. This increased temperature is regulated by the constant giving off of heat through the rapid breathing and the uncovering of the parturient woman. In contrast to this normal elevation of temperature *intra-partum*, which is lower in the period of expulsion than in the beginning period and after birth period, is the fever in labour, of which Winter has collected 100 cases from a large polyclinic material. He classes these cases in two groups: (1) Increased heat production through excessive activity of the uterus and muscular action; (2) infection.

Of the forty-one fever cases of the first variety twenty-one were I-paræ. In seven cases the temperature was above 102°; in all there was a reduction of temperature *post-partum*, frequently to normal. In multiparæ with normal pelves and yielding soft parts fever was seldom seen. It was frequent in

stenosis of the soft parts, and most frequent in narrow pelves, as here very powerful pains are necessary to overcome the resistance at the entrance of the pelvis. The pulse became rapid in proportion to the increase in temperature. Labour in narrow pelves and faulty presentations disposed to rapidity of the pulse. In fifty-three cases the fever was referable to infection; common to all of these was an excessively long duration of labour. In only two cases did fever occur where the membranes were unruptured. Winter believes that ptomaines from the decomposing matter give rise to the fever; that it is a fever of intoxication, and not of infection. He considers two forms: In the first the temperature rises slowly to about 101° F., falls, if the labour lasts long, again to be elevated. In this form chills are rare. In other cases the temperature rises and soon falls slowly; rises anew to sink again. In these cases the remissions may reach the normal point; the temperature seldom remains long at 103° F. The second form is characterised by much higher temperature. In seven cases it was over 104° F., and also after labour it rises still higher. In sixteen cases chills were noticed. *Post-partum* they occurred most frequently after the conclusion of operative measures and intra-uterine injections. Winter believes the chills indicate the incorporation of a greater mass of toxic material at one time. The pulse during the intoxication is increased in frequency beyond the temperature, and increases in frequency before the temperature begins to rise. Regarding the diagnosis of infectious fever from the functional, Winter states: Tympania uteri with stinking discharge, temperature above 104° F., chill, great incongruence between pulse and temperature, prolonged labour with weak pains and early ruptures of membranes, indicate infection. The fever from abdominal uterine activity is of favourable prognosis for the mother. Infection *intra-partum* is a progressive product of decomposition that gradually advances and never spontaneously recedes, if the labour, spontaneously or by assistance, does not give free exit to the decomposing matter. Only when the labour is ended, so long as the walls of the

uterus are not yet infected, is the patient in little danger, while later mostly general sepsis enters. Twenty per cent. of children are killed by fever in labour. It is not the high temperature, but the process of decomposition in the uterus that is so deadly. Winter advises, relative to the treatment of fever during labour, above all, the exact investigation of temperature and pulse. In functional fever it is best to wait; if the diagnosis of infectious fever is yet doubtful, he operates only when all the requirements for an easy operation are fulfilled. In certain cases of infectious fever he delivers in the interests of the child so soon as the soft parts permit it. Tympanitic distension and continued high fever indicate an immediate delivery in the interest of the mother. In all simpler cases he waits expectantly. After the labour Winter washes the uterus, with the yet adhering placenta, with two or three litres of antiseptic fluid, and with the same quantity after the placenta is separated. As injecting fluid he uses sublimate, 1-5000; carbolic acid, usually 3 per cent.; lysol, $\frac{1}{2}$ to 1 per cent.

**SUMMARY OF GYNÆCOLOGY, INCLUDING
OBSTETRICS.**

SARCOMA OF THE FEMALE URETHRA.

Professor EHRENDORFER (*Centralblatt für Gynäkologie*, No. 17, 1892), records a case of this exceedingly rare occurrence—sarcoma of the urethra. The patient was 52 years old, and had noticed for a year and a half an increasing swelling at the meatus urinarius. Three growths were found protruding from the urethra, and pushing apart the labia minora. These were excised, and were found under the microscope to be made up of small round nucleated cells in a scanty stroma. The condition showed some resemblance to that known as urethral vascular polypi or caruncles.

**THE INFLUENCE OF PARTURIENT LESIONS IN THE
CAUSATION OF PUERPERAL INSANITY.**

Dr. G. H. ROHE (*The Journal of the American Medical Association*, July 16, 1892) reports four cases in which uterine and vaginal lesions (perineal and cervical tears) were followed by puerperal insanity. In two of the four cases recovery followed the operative treatment of the lesions, and in the other two there was considerable improvement, the mental disorder becoming much less objectionable and serious in type. The writer concludes that puerperal insanity is, in at least the large majority of cases, an infection psychosis; and that, without rejecting the influence of other factors, such as heredity, anæmia, exhaustion, mental shock and distress, careful observation will show that few cases of this disease occur without preceding or coincident puerperal infection. His reasons are: that puerperal insanity usually occurs at the

same period at which infection is met with, that it is usually accompanied by elevation of temperature, that it is of the acute and delirious type, that the death-rate is higher than in simple mania, that autopsies and examinations during life usually reveal the existence of pelvic lesions, and that the results of operations seem to show that the removal of local sources of irritation increases the chances of recovery from the mental disease.

FOETAL SKELETON IN A DERMOID CYST.

RÉPIN (*Annales de Gynécologie*, August, 1892), describes an ovarian dermoid cyst on the inner wall of which was a protuberance with four extremities attached to it. Under a thick layer of adipose tissue were the bones of four imperfect and quite recognisable limbs, along with a large bone containing teeth. A loop of intestine was also found along with a salivary gland. The author concludes that all ovarian dermoids are due to the inclusion within one of monochorionic twins of its deformed brother.

THREE CASES OF UTERUS UNICORNIS WITH RUDIMENTARY HORN.

Professor MANGIAGALLI (*Atti della Associazione medica Lombarda*, No. 1, 1892), reports three interesting cases of uterus unicornis, in one of which the rudimentary horn became the seat of a conception, in another of a fibroid growth, and in the third of inflammation. In that instance in which there was a large fibroid of the uterine horn, there was also absence of the vagina; the growth was removed by laparotomy; bleeding took place afterwards, for which it was necessary to reopen the abdomen, and the patient died from blood loss. In the third case the rudimentary horn was large, impervious, and the seat of inflammation, which also affected the ovary. It was causing trouble, and was removed by median laparotomy. The patient recovered well. Perhaps the most interesting of the three cases was that in which pregnancy had taken place in the impervious uterine horn.

The diagnosis of retention of a dead and mummified fœtus in the impervious horn of a uterus bicornis was made, and laparotomy was performed. It was found that the diagnosis had been right; the mass was removed, and the patient recovered. It was noted that in the ovary, which was united to the mass, was a large corpus luteum.

CONTRIBUTION TO THE PRACTICE OF SYMPHYSEOTOMY.

Dr. CARUSO (*Annali di Ostetricia e Ginecologia*, April, 1892), first narrates two cases in which symphyseotomy was performed for labour in rickety women. In both cases the mothers made an excellent recovery; in one the child was born living, and survived; and in the other it was still-born, with two loops of the cord round the neck. The author then makes some remarks on the technique of the operation, alluding to the rigorous employment of antiseptic precautions, the use of a convex knife, &c.; and gives, finally, a synoptical account of the cases of symphyseotomy performed at Naples since the latter half of the year 1887. The operators were Mancusi, Morisani, Scribelli, Campione, Postiglione, and Caruso himself. All the mothers recovered, but two infants out of the twenty-two were still-born, in one case through coiling of the cord twice tightly round the neck. In five cases the operation was carried out for the second time on the same patient. The indication for the operation was found in the existence of a conjugate diameter of from 6.7 to 8.1 cms. The wound usually healed by first intention. In two cases a vesico-vaginal fistula was made by faulty technique; in another instance there was a uretero-vaginal fistula similarly produced.

FORCING A SEA-TANGLE TENT INTO DOUGLAS' CUL-DE-SAC.

The following case is reported by Dr. W. T. WATSON, of Baltimore. On February 27th, at 6 p.m., saw in consultation a young married woman of 24; mother of three children. She had been about two months pregnant, and had attempted to produce abortion on herself with a sea-tangle tent three

days before I saw her. After leaving it for twenty-four hours, she tried to remove it, but simply pulled out the string. Next morning her physician was summoned, but failed to find the tent, although the uterus was partly dilated and from it issued a bad-smelling discharge. When I saw her, her temperature was 103°, pulse 120; abdomen very much swollen and exceedingly tender. The finger could be introduced into the uterine cavity, but no tent was found. An opening in the wall of the cervix was discovered, and through this the tent was felt in Douglas' *cul-de-sac*. It was removed through this opening, and was found to be about the size of one's little finger. An opening was made into the *cul-de-sac*, and a drainage tube put in. The uterus and vagina were washed out with 1:4000 bichloride. There was a temporary improvement, but she finally died—thirty-six hours after I first saw her.

The woman maintained to the last that she introduced the tent herself, and this is probably true, considering the direction in which it was forced.

THE TREATMENT OF PELVIC SUPPURATION.

PEAN (*Gazette des Hôpitaux*, No. 110, quoted in *Univ. Med. Magazine*, May, 1893), divides the consideration of this condition into three heads :

(1) Typical suppuration without any alteration of the neighbouring organs.

(2) Mixed suppuration with involvement of the neighbouring organs, such as stenosis of the uterus or vagina or tumours of the uterus.

(3) Complicated suppuration with rupture into the abdominal cavity or bowel. The uterus and adnexa where necessary should be removed through the vagina, because in simple cases the removal is very easy and in difficult cases easier than through an abdominal incision. It is more certain in its end results, and allows better disinfection and drainage.

The mortality of the operation is almost nil. Of the 150 cases operated upon by Pean, 145 made a complete recovery. In cases of mixed and complicated suppuration the vaginal method is the only one to be considered.

TUBERCULOSIS OF THE FEMALE GENERATIVE ORGANS.

J. WHITRIDGE WILLIAMS (*Johns Hopkins Hospital Reports*, vol. iii.) says that while genital tuberculosis has been known to exist for a great length of time, it is only since the adoption of abdominal section for the cure of tubercular peritonitis that it has assumed an important position as the possible mode of origin of that affection. Previous to that time it was only of interest as an occasional find at autopsies on phthisical women, who might or might not have a tubercular peritonitis.

The comparative frequency of this disease was made known to the writer through the plan he had adopted a few years ago of systematically examining all pathological specimens of female generative organs. Instead of this condition being a pathological curiosity, these investigations have shewn it to be a disease of practical interest and importance. The following conclusions are presented: Genital tuberculosis may occur at any age, from ten weeks to eighty-three years, but usually between the twentieth and fortieth years. It is generally secondary to tuberculosis elsewhere, but in a considerable number of cases is primary in the genitals. In the writer's experience about 8 per cent. of all appendages removed for inflammatory disease are tuberculous; only a small portion of these being recognised as tuberculous before operation. Every portion of the genital tract may be affected, the order of frequency for the various portions being tubes, uterus, ovaries, vagina, cervix and vulva. The tubes are affected in nearly all cases, the uterus in from 60 to 75 per cent. and the ovaries in from 40 to 45 per cent. of all cases. Tuberculosis of the cervix occurs more frequently than is generally supposed, and is likely to be mistaken for carcinoma. Tuberculosis of the tubes and uterus is usually limited to the mucous membrane, and occurs in three forms:

Miliary tuberculosis, chronic diffuse tuberculosis, and chronic fibroid tuberculosis. Chronic diffuse tuberculosis is by far the most frequent, and represents the well-known caseous form of the disease.

Genital tuberculosis may be due to direct infection from without. The occurrence of infection by coitus is very probable, but has not yet been conclusively demonstrated. The majority of cases are secondary to tuberculosis elsewhere, and are due either to infection from the blood or the neighbouring organs. Even in the apparently primary cases it is impossible to exclude blood infection. The symptoms are not characteristic. In primary cases they may be entirely absent, or stimulate the symptoms of simple endometritis and salpingitis, or, on the other hand, give rise to indications of the most severe forms of pelvic abscess. In those cases where the genital infection is secondary, the symptoms of the primary infection may so overshadow those of the genital tract that they will not be recognised during life. The prognosis is always grave. Primary cases may lead to phthisis, tubercular peritonitis, or general infection, and either primary or secondary cases may go on to suppuration, abscess formation, and death may result from marasmus and hectic fever, or peritonitis, or from the primary affection.

Primary cases can only be diagnosed by the discovery of the tubercle bacilli in the secretions, or the demonstration of the histological characteristics of tuberculosis in the scrapings from the uterus. The co-existence of tubo-ovarian masses with phthisis and tubercular peritonitis should at once arouse suspicion as to the tuberculous nature of the affection. The treatment may be prophylactic, palliative and operative. Preventive measures consist of cleanliness and the prohibition of coitus between persons one of whom has genito-urinary tuberculosis. Ulcerations of the vulva, vagina and cervix should be treated with application of iodine and iodoform, and excised if isolated, and intractable to treatment. Tuberculosis of the uterus should be curetted and iodoform introduced; if the disease recur, vaginal hysterectomy may be performed.

Tuberculous tubes and ovaries should be removed, unless the patient's general condition contra-indicates such procedure, as in advanced phthisis. Tubercular peritonitis and the early stages of phthisis are not contra-indications to such operation.

PROMPT AND RADICAL TREATMENT OF MAMMARY ABSCESS.

WEBER, of Chicago (*La Semaine Médicale*, February 10, 1893, quoted in *Univ. Med. Magazine*, April, 1893), describes the following treatment for abscess of the mammary gland, for which he claims (1) rapid healing ; (2) union practically by first intention, which, by the non-formation of connective tissue, allows the functions of the gland to be uninterfered with, and avoids the liability of subsequent development of cancer.

As soon as he is satisfied of the presence of pus the gland is freely incised, several openings being made in a radiating manner, from the areola toward the periphery. The finger is then introduced and the cavity of the abscess explored in all directions. All the necrosed and broken-down tissue is carefully scraped out with a sharp curette, and the wound washed out with an antiseptic solution. The abscess cavity and wounds are carefully packed with strips of gauze soaked in a 1 per cent. carbolic acid solution. The breast is dressed with similar gauze, covered with gutta-percha tissue or oil silk, and the dressing retained by a roller bandage. At the end of thirty-six hours the packing is removed and the cavity again irrigated and repacked. After twenty-four hours a similar toilet is performed, when, under the influence of the moist dressing, inflammation will have subsided and the suppuration will have ceased. At the next dressing, after removing the packing, the breast is covered with a thin layer of gauze, and a large sterilized sponge, which has been squeezed dry from a 1 per cent. carbolic acid solution, is laid upon it and a bandage applied to exert firm pressure. The object is to bring the walls of the cavity into close apposition.

When the bandage loosens in a few hours, two or three ounces of a 1 per cent. carbolic acid solution may be poured upon the sponge which, in swelling, tightens the bandage. In applying the sponge care should be taken that the breast is not compressed in a pendulous position and that the nipple is in the centre of the compressed area.

The dressing is changed every day. By the eighth or tenth day the wound is completely healed. Should a few granulations persist along the lines of incision, they may be healed by strapping or skin grafting.

CHRONIC INVERSION OF THE UTERUS.

W. L. BRASIUS (*Medical and Surgical Reporter*, March 25, 1893) reports a case of inversion of the uterus of twenty-five years' duration. The condition followed the birth of the woman's first and only child, and produced a state of invalidism through the effects of menorrhagia and various reflex symptoms. The reposition of the inverted uterus was accomplished by the use of Aveling's instrument in about a day and a half. In order to maintain the proper position of the fundus, an intra-uterine support was devised by wrapping gauze around the vaginal pipe of an ordinary household syringe, and also drawing the gauze through the pipe for the purpose of providing drainage as well as support. This appliance was continued for ten days, with daily renewals and cleansing, and the uterine canal at the end of this time measured three inches.

The reposition occurred eight months ago, and the patient has menstruated regularly ever since without excessive flow, and has regained her health. The writer suggests that in using the repositor the push should be made in the direction of the greatest resistance, which will usually be found to be in the axis of the superior strait; that the pressure be only sufficient to accomplish gradual reduction; that when reposition is accomplished it be maintained by elevation of the

fundus by some sort of intra-uterine support, and that every precaution be taken to insure perfect cleanliness.

PAPILLOMATOUS TUMOURS OF THE OVARY.

The *Johns Hopkins Hospital Reports*, vol. iii. (quoted in *Univ. Med. Magazine*, May, 1893), contain an exhaustive study of the above subject by J. Whitridge Williams. Twenty-six cases are analysed, five of which came under the writer's personal observation. He is led to believe that papillomatous growths of the ovary are of far more frequent occurrence than is generally supposed. Inquiries, addressed to over fifty operators in this country and abroad, with reference to their knowledge of the condition, brought negative replies from all but seven. In regard to the etiology of these growths, it is stated that we are as ignorant as our predecessors, and that a study of the twenty-six cases reported does not appear to confirm the theory of Gusserow and Olshausen, that their formation is due to inflammatory processes which arise from infection through the tubes. These growths are derived either from the Graaffian follicle or germinal epithelium; their origin from relics of the Wolffian body or from the tubal epithelium, while possible, has yet to be demonstrated. As the origin of both the ciliated and non-ciliated papillomatous growths is identical, it is held that there is no justification in considering them as constituting two distinct classes of growths. Most papillomatous cystomata are not developed in the broad ligament, the majority of intra-ligamentous papillomatous growths being of other than ovarian origin. The superficial papillomatous growths of the ovary are of far greater frequency than is generally supposed. They are very closely related to the papillomatous cystomata, and are always derived from the germinal epithelium. All varieties of papilloma of the ovary have a marked tendency toward the formation of secondary growths, the majority of which are produced by mere extension of the growth by continuity of tissue or by implantation of small particles of the tumour upon the peritoneum. In

rare instances true metastases may be formed. These tumours possess a strong tendency to become malignant, and even the anatomically benign growths, in view of their tendency to the formation of secondary growths, are to be considered as clinically malignant. Finally, the results of operations, even after the formation of secondary growths upon the peritoneum, are quite satisfactory.

OSTEOMALACIA.

STERNBERG, of Vienna (*Wiener Klinische Wochenschrift*, No. 44, 1892), warmly advocates phosphorus treatment for osteomalacia, and records the notes of three cases so treated. The first case was that of a woman who suffered from pain in the sacral region during her fourth pregnancy. After labour the pain disappeared. In the fifth pregnancy violent sacral pain reappeared, rendering walking difficult. The pain continued after termination of pregnancy, and legs and breast were likewise affected. The patient when seen by Sternberg had been confined to bed for a year, and evinced a high grade of osteomalacia. She was ordered :

R. Phosphorus gr. j.
Ol. morrhuæ ʒ ij.
M. S.—Teaspoonful daily in divided doses.

After ten months' treatment in hospital the deformed soft bones were perfectly hard and the woman could walk long distances.

In the second case the trouble began in the fourth pregnancy, disappearing after labour. In the fifth pregnancy the disease returned with renewed violence, quickly reaching such a grade that the woman, nearly the entire period of her gravidity, was forced to remain in bed. After labour the patient could not raise herself from the bed. About a year and a half after she came under observation. As a pulmonary complication contraindicated castration, she was placed upon the phosphorus treatment, with rapid amelioration of the symptoms. In

three months she could leave her bed without assistance, and soon could walk a few steps.

The third case gave indications of the trouble in the third puerperium. In the eighth pregnancy she experienced pains in sacrum and lumbar region, but grew better after labour. The ninth pregnancy also showed an exacerbation. After the labour following this, which was difficult, she suffered from pain and difficulty in locomotion. Six months later, when she came under observation, the pelvis was very yielding, and she evinced severe osteomalacia. Under the phosphorus treatment the patient could in four months walk and assist in ward duties. In this case there was a relapse, owing to the phosphorus being omitted from her mixture, from which she rapidly recovered on being again placed upon treatment.

SYMPHYSEOTOMY.

SCHWARZ (*Centralblatt für Gynäkologie*, No. 5, 1893, quoted in *Univ. Med. Magazine*, April, 1893) performed symphyseotomy for the extraction of an amputated head, which had been retained in the uterus. The patient was a 22-year-old III-para. The first child had been delivered by forceps after three days' labour, dying during the extraction, and the mother had suffered for eight weeks from traumatism and fever. The second child was in transverse position, and delivered by version, dying during the extraction. In the third labour the head presented, forceps was applied, but the head could not be brought into the pelvic inlet. Version by the feet was then performed, and the child extracted to the head, which could not be brought out of the uterus, even though the forceps was re-applied. The uterus was then given time to expel the head spontaneously, and not succeeding, after again resorting to forceps, the child in the meanwhile having died, decapitation was performed, that the forceps might get a better hold on the head. An alarming hæmorrhage, from injury to the lower segment of the uterus, required tamponing of the os and vagina. The woman was

seen by Schwarz about twelve hours later in an eclamptic condition. The pelvis measured : spines, 21 ; crests, 23 ; external conjugate, 16.8 ; conjugate diagonal, 10.5. Uterus firmly contracted. Under chloroform narcosis, a penetrating wound of the neck and under segment of the uterus, about 8 cm. long, was found. Fearing to increase the tear, or to rupture the uterus, by forcible attempts at extraction, Schwarz decided upon symphyseotomy. After dividing the symphysis there was a separation of 3 cm. After applying the forceps, the ends separated to 7 cm., allowing the head to pass without difficulty. After expelling the placenta, the wound in the uterus was closed by six sutures, and an iodoform drain placed in the cavity. The symphysis was united by four and the skin wound by six sublimated silk sutures.

The child's head measured : fronto-occipital, 11.5 ; mento-occipital, 12.8 ; bi-temporal, 10 ; bi-parietal, 8. The patient left her bed in six weeks.

THE EMPLOYMENT OF KITCHEN SALT IN THE PERNICIOUS ANEMIA FOLLOWING POST-PARTUM HÆMORRHAGE.

NEICHTNOBE (*Vratch*, No. 20, 1892, quoted in *Univ. Med. Magazine*, April, 1893) reviews the methods of administering the saline solution by the mouth, under the skin and in the veins. The subcutaneous injection, and that into the veins, requires previous sterilization and special apparatus. More accessible on all occasions is the injection of salt water into the rectum. Neichtoubé cites five cases, in each of which he injected a litre of saline solution into the rectum. In all of the cases there was a favourable termination. In one case of typhoid which had aborted, he gave the injection despite the diarrhœa.

THE OCCURRENCE OF SUGAR IN THE URINE DURING THE PUERPERAL STATE.

Drs. McCANN and TURNER (*British Medical Journal*, December 24, 1892) reported to the Obstetrical Society of

London the results of the examination of the urine from one hundred mothers for the presence of sugar. The conclusions arrived at are as follows :

(1) That sugar is present in the urine during lactation. (The authors assume, with Hoffmeister, that this sugar is milk sugar.) Glucose may also be found. (2) That sugar is present at some period in every case. (3) That in the majority of cases the largest amount occurs on the fourth and fifth days of the puerperium. (4) That the quantity depends on (a) the condition of the breasts; (b) the quantity and quality of the milk; (c) the sucking of the child. Out of one hundred cases the average quantity was 0.35 per cent., that is, $1\frac{1}{2}$ grains per ounce. (5) That when lactation is diminished or suppressed, the amount of sugar diminishes or disappears. (6) That when the production and exhaustion of the milk are equal, the amount of sugar is very small. Cases showing the varying conditions observed were cited in detail.

CONCERNING THE QUESTION OF ECLAMPSIA BACILLI

DÖDERLEIN, of Leipzig (*Centralblatt für Gynäkologie*, No. 1, 1893, quoted in *Univ. Med. Magazine*, April, 1893), reports the results of the bacteriological examination of eight cases of eclampsia, which negative those of Gerdes, and agree with those of Hoffmeister and Hagler. The investigations were made from the urine of the mother, in four cases from the maternal blood, from the blood of the child, from the placenta, in two cases from the child's urine, under careful antiseptic precautions. From this material about fifty inoculations were made, all of which, with the exception of those from the maternal urine, remained sterile. The culture-media, which had been inoculated with the urine from the mothers, showed a rich development of the most varied forms of germs, especially bacteria in chains. A number of investigations, made upon healthy pregnant women for comparison, were convincing of the impossibility of procuring urine, even under the most careful methods, without infecting it by the urethral

secretions, which are rich in bacteria. Döderlein, therefore, draws the conclusion that the eclampsia bacillus of Gerdes is not the cause of eclampsia.

THE TREATMENT OF ALBUMINURIA GRAVIDARUM.

JACCOUD, of Paris (*La Semaine Médicale*, February 10, 1893, quoted in *Univ. Med. Magazine*, April, 1893), places pregnant women, as soon as they have shown signs of albuminuria, upon an exclusive milk diet, and continues it until labour has taken place, even though the albumen disappears from the urine. He examines the urine at least once a week. If it shows no other change than the presence of a certain quantity of albumen, he prescribes the daily inhalation of oxygen, using at least thirty litres in the twenty-four hours. If the urea excreted is below normal, the quantity of oxygen is increased to twice or three times this amount. The patient should be carefully protected from cold, and should uræmic symptoms appear he resorts to phlebotomy.

Jaccoud further insists upon the systematic use of milk by all pregnant women to prevent the occurrence of albuminuria. He directs them to commence with two pints a day, gradually increasing to three pints, until the end of the sixth month, after which two quarts daily should be taken. After labour the quantity is gradually decreased during the following six weeks.

CONCERNING THE ETIOLOGY OF RUPTURE OF THE UTERUS DURING PREGNANCY AND DURING LABOUR.

From the study of twenty-two cases of rupture of the uterus during pregnancy, BLIND (*Centralblatt für Gynäkologie*, No. 5, 1893, quoted in *Univ. Med. Magazine*) draws the following conclusions: (1) The rupture was constant in the fundus. (2) Frequently there is found a marked thinning in the neighbourhood of the tear. (3) With relative frequency the point of rupture coincides with the placental attachment.

(4) The tubal cornua, when they give attachment to the placenta, are relatively disposed.

Blind adds two cases of spontaneous rupture during labour to the seventeen cases found in the literature. The first was a 44-year-old XII-para. Buttock presentation, pains feeble. The child was extracted by a midwife; placenta did not follow. On examination coils of intestines were found in the uterine cavity. Cæliotomy was performed, and the tear in the posterior wall of the uterus was sewed up. Uterus contracted well under injections of ergotin. There was no fever. Woman died on the seventh day, of ileus. Microscopical examination showed a shortening of the muscle fibres of the uterus. The etiology of the rupture consisted in the deficient dilatation of the cervix, and insufficient hypertrophy of the muscle fibres.

The second case occurred in a 38-year-old XIII-para; child in transverse position; placenta prævia. Combined version was performed, and child extracted. Placenta followed in four minutes without hæmorrhage. Soon after the woman went into collapse and died. There was left-sided cervical tear. Here, also, there was recognised microscopically, a deficient hypertrophy of the muscle fibres, and insufficient dilatation of the cervix was assigned as the cause.

MELÆNA NEONATORUM: VIOLENT INTESTINAL HÆMORRHAGE IN A NURSING INFANT THREE DAYS OLD.

Dr. GELPKE, of Liestal (*Correspondenz-Blatt für Schweizer Ärzte*, February 1, 1893, quoted in *Univ. Med. Mag.*, May, 1893), gives the following notes of a case of melæna neonatorum in a three-day old infant: The first two passages were normal; on the third day the first bloody passage occurred, and for three days the stools were copious, consisting partly of pure dark blood and partly of tarry matter, and apparently attended with great pain. The child became waxy in appearance, and is at the present writing (five months later) extremely anæmic. The father, mother and numerous

brothers and sisters are perfectly healthy. There is no trace of syphilis or hæmophilia.

The condition is one of great rarity, occurring about once in 4,000 births, according to Leopold. Concerning its etiology there is great difference of opinion. Syphilis and hæmophilia are the common credited causes. Münchmeyer has found ulcers in the duodenum, Nieberding found the arterial duct remaining open, with narrow pulmonary arteries and an over-filling of the arterial system with venous blood. Emmet reports multiple hæmorrhages in an infant following the administration of ergot to the mother.

A NEW METHOD OF ARTIFICIAL RESPIRATION IN ASPHYXIA NEONATORUM.

DEW, of New York (*New York Medical Record*, March 11, 1893), describes a new method for establishing respiration in asphyxia neonatorum, which is less fatiguing to the operator than Sylvester's method, and can be performed without shock.

The method is described as follows: The infant is grasped with the left hand, allowing the neck to rest between the thumb and forefinger, the head falling over backward, straightening the mouth with the larynx and trachea, thereby serving to raise and hold open the epiglottis. The upper portion of the back and scapulæ resting in the palm of the hand, the other three fingers are to be inserted in the axilla of the baby's left arm, raising it upward and outward. Then, with the right hand, if the baby is large and heavy, grasp the knees in such a way as to hold them with the right knee resting between the thumb and forefinger, the left between the fore and middle fingers. This position will allow the back of the thighs to rest in the palm of the operator's hand. If the infant is small and light, it will be found more convenient and easier to hold it in the same way by the ankles, instead of the knees, allowing the calves instead of the thighs to rest in the palm of the hand.

The next step is to depress the pelvis and lower extremi-

ties so as to allow the abdominal organs to drag the diaphragm downward, and with the left hand to gently bend the dorsal region of the spine backward. This enlarges the thoracic cavity, and produces inspiration.

Then, to excite expiration, reverse the movement, bringing the head, shoulders and chest forward, closing the ribs upon each other. At the same movement bring forward the thighs, resting them upon the abdomen. This movement arches the lumbar region backward, and so bends the child upon itself as to crowd together the contents of the thoracic and abdominal cavities, bringing about a most complete and forcible expiration.

THE EFFECT ON SUCKLINGS OF PURGATIVES ADMINISTERED TO THE MOTHER.

Dr. WILLIAM GOW (*The Practitioner*, March, 1893) was inspired by the experiments of Fehling upon the appearance of certain drugs administered to nursing women in the milk, to the investigation of the effect upon the nursing infant of purgatives administered to the mother. Four drugs were selected—aloes, senna, cascara sagrada and sulphate of magnesium. In all cases the frequency of the action of the bowels was noted before and after, in both mother and child, and the trial extended over a period of time not less than a week, and in some cases longer. The observations were simply clinical, no attempt being made to determine whether the drugs given appeared in the milk. The infants varied in age from three weeks to ten months.

Eleven observations were made with senna, administering ten grains once a day, and in a few cases oftener. With one exception, the child's bowels were unaffected, and in the exceptional case they were "less costive than before."

Ten observations were made with aloes, administering 2.18 grains of Barbadoes aloes, combined with extract of nux vomica, once a day, in five cases, and twice a day in the remaining five cases. In eight cases the child's bowels were

unaffected; in one case the child became more costive, and in one case the bowels acted more freely.

Ten observations were made with cascara sagrada, in doses of two to five grains of the solid extract and half a drachm of the fluid extract. In eight cases the children's bowels were unaffected; in one case they became more costive, and in one case less costive than before.

Eleven observations were made with sulphate of magnesia, administering one drachm three times a day. In five cases, the children's bowels were more freely opened than before. In one case the child became more costive.

These observations show that sulphate of magnesia, administered to the mother, leads to purgation of the child in nearly half the cases. Senna, aloes and cascara sagrada seem only occasionally to produce this result, and, therefore, may be considered most suitable remedies for constipation in nursing women.

HYSTERECTOMY FOR PUERPERAL METRITIS.

B. W. GOLDSBOROUGH (*New York Medical Journal*, February 18, 1893) reports a case of septic infection in one of his patients, occurring at the end of the third after an easy labour. When first seen she had a temperature 104.5° F., pulse 120, and an anxious and collapsed expression. The uterus was washed out with "warm carbolized solution," the bowels were purged, and quinine and phenacetine were administered. Only temporary improvement followed these measures, and the lochia continued offensive and the diphtheritic patches were still over the cervix the next day. On the fifth day Dr. H. A. Kelly was summoned and removed the uterus by abdominal section. The stump was treated by the extra-peritoneal method after being burned out with a Paquelin cautery, and the peritoneum united carefully to the peritoneal investment of the cervix, thus shutting off the cervix from the pelvic cavity. The uterus was large and everywhere infiltrated, containing necrotic masses in its sub-

stance where the muscular tissue was disintegrated. The patient immediately improved, and the temperature and pulse rate became normal after three or four days. There was a stitch abscess five days after operation, and about a month after, a phlebitis, beginning in the left ankle and extending up the body and involving the right leg on the following day. No other sequelæ appeared, and the woman is in perfect health, a year having elapsed since the operation.

NOTES AND NEWS.

The *New York Medical Record* indulges in the following poetic effusion :—

"THE DREAM OF THE OVARY.—When the window-pane is broken, how demure and quiet all the boys are. No one has done it, and each looks in such innocent wonder at his neighbour that it seems almost cruel to ask questions. The only unpleasant aspect of the affair is the fact of the damage done. Everything else is so refreshingly guiltless that we are almost thankful that the alleged accident has happened, in order that the innateness of the good should become so strongly accentuated. So it is with the discussion concerning reckless surgery recently held in one of the leading dailies. The charge has been made with no reason, of course, that surgery is becoming too invasive. If anyone believes that such is possible he has merely to read the conservative interviews and be at once disabused. With the incoming year each and all of us will hail this radical change in opinion with becoming joy. What glad news this will be for the little ovary, which can now uninterruptedly carry on its particular home industry instead of becoming domesticated into the pickling-jar of the progressive gynæcological pathologist. Its commoner and multiplied diseases will vanish, the innocent cysts will no longer be apologetically demonstrated, and operative statistics will dwindle. The peritoneum will no longer be a thoroughfare, and the surprised gut will less seldom twist its bashful coil from the light of day, or join in the unnatural alliances of advanced intestinal anastomosis. The vermiform will gladly retire to private life ; the wandering kidney will be more likely to stay at home ; and even the gallstones will elbow their faceted sizes through the dark tunnel of the common duct in the good old-fashioned style, only to be lost in the harmless embarrassment of a delayed stool. Let us hope, then, that the surgical millenium is coming, that the knife shall be turned into a spoon, that the pill shall once more have its right of

way, that the ovary shall hereafter peacefully wrap the drapery of the broad ligament about her and lie down to pleasant dreams of families yet to be."

There is an important moral in the following statement made by the *American Lancet* :

"A few months since the court at Albia, Iowa, mulcted a Dr. Abegg in a considerable sum for alleged malpractice in setting a fractured limb. As a result the coming term of said court has four malpractice cases to consider, aggregating 30,000 dols. damages. Unless the doctors stand by each other and stop these suits, none of them will have any money left. We emphasise the fact that the doctors could stop this state of things, because it was never known as a historical fact that any malpractice suit was won against a doctor when all his fellows stood by him. We never knew a malpractice suit brought against a physician unless some other doctor supported the bringing of the suit and promised to support the plaintiff by his sworn testimony. It is possible that a suit might be brought against a doctor when he was supported by all his fellows, but certainly no judgment could be obtained against him.

"It would seem as if self-interest would induce every doctor to stand by his unfortunate brother, because if that brother is mulcted of damages in court it is but a question of a short time when he too will be made to act as defendant in a similar suit. It would seem as if self-interest alone would prevent any physician from encouraging or supporting a suit against any other doctor, even though he were his bitterest enemy. Certainly good common-sense would teach any doctor not to play with such a dangerous 'boomerang' as malpractice suits against his brother doctor. In the instance quoted, one suit was followed in a few months in a small country town by four other suits, and each against a different doctor.

"There are plenty of blood-suckers in every community that regard it as 'smart' to get all the service they can out of a doctor and then blackmail him after refusing to pay for the service they have received. If the medical profession of that neighbourhood do not stand together in self-protection against this class of pirates, they will individually have occasion to regret it in the near future.

"The great curse of the profession in the past and in the present is that it does not by its individual members stand shoulder to

shoulder and meet the assaults of those who would degrade the profession or shoot its individual members. Were it strong in this practical brotherhood, it need fear naught from outside attacks—it could march to victory in all conflicts with its enemies. Especially would its individual members have no malpractice suits to look after.”

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THE BRITISH GYNÆCOLOGICAL SOCIETY.

THURSDAY, MAY 11, 1893.

F. BOWREMAN JESSETT, F.R.C.S., PRESIDENT, IN THE CHAIR

PRESENT : 36 Fellows and Visitors.

Dr. C. A. Kirkby was nominated for election, and Drs Giles, Guthrie, Von Hahn, Hall, Stephens and Stryde were elected Fellows of the Society.

The PRESIDENT related the following case of *Sarcoma of the Uterus*, and showed the specimens.

A patient, aged 68, single, had had a discharge of blood for eight or nine months. When examined by her ordinary medical attendant at Christmas, there was nothing found to account for the hæmorrhage. The symptoms continuing, with much pain and great discomfort, Mr. Jessett was asked to see her in March. Vaginal examination was difficult, owing to the narrowness of the passage; but the os was reached, and was found to bleed readily. Examination, under ether, with permission to proceed to operation if necessary, was recommended, the diagnosis being that of probable carcinoma. Accordingly, the vagina was dilated, and the cervix

uteri was then found to be very thin, the finger passing readily through the os. Occupying the cavity was a smooth soft mass, which felt like, and had all the appearance of, a blood-clot. The os was divided with scissors, and the pulpy mass removed. At the fundus was a polypoid growth; this was easily removed by twisting off with forceps. After the operation a favourable prognosis was given. He had had the polypus examined by two competent pathologists, when it was found to be a round-celled sarcoma. This had made him anxious as to the prognosis; but in the meantime the patient had made a good recovery. The unusual form of this sarcoma was noteworthy; as was also, considering the age of the patient—63—the fact of its being a sarcoma and not a carcinoma. The specimen was very small, consisting of three small growths.¹

Dr. BANTOCK thought the case was a valuable one; and asked what Mr. Jessett would have done had he known at the time of operation the nature of the growth.

The PRESIDENT replied that he did not think hysterectomy would have been indicated as the growth was so small and so localised; he should have done what he did, with the addition of plugging the uterine cavity with cotton wool and chloride of zinc.

Mr. REEVES showed two specimens:—

1. This was a vesical calculus, removed from a patient aged 31. She presented the usual symptoms of stone. She had some time previously had a suppurating pelvic hydatid (?) which had burst into the bladder and rectum; and it was thought possible that pus in the bladder might have formed the nucleus of the stone. The calculus was easily struck by the sound, and an attempt was made to crush it with the lithotrite. This failing, a male calculus forceps was introduced into the much dilated urethra, and the stone removed. Such a large stone would more often, he thought, be removed either by the supra-pubic operation or by means of an

¹ The disease recurred in June, and I removed the uterus *per vaginam*. The case will be detailed at a future meeting of the Society.

aperture in the vesico-vaginal wall. But the female urethra was capable of much dilatation with impunity. On the third day this patient could hold her water. He recalled a case he had seen ten or eleven years previously, of a large stone in a young girl. The finger introduced through the urethra struck something sharp, which proved to be a hairpin, round which the stone had formed. The lithotrite failed to crush the stone; with the forceps the hairpin and stone were seized in their long axis and removed. The patient had incontinence for three weeks after, but then got quite well. This patient had confessed later for what purpose she used the hairpin, stating that on one occasion it slipped into the urethra.

2. Also a specimen from the bladder. The patient gave a history of repeated hæmorrhage and frequent micturition. The sound revealed no abnormal condition. A digital examination was made under ether, when a papillary growth with a thick pedicle was discovered. It appeared to spring from the neighbourhood of the orifice of the left ureter; and a thickening felt through the bladder wall made it probable that the ureter itself was affected. Two fingers were introduced into the urethra, and the tumour was removed; the pedicle was seized with forceps and cauterised. The patient had no incontinence, and on the third day the urine was clear. Since the operation she complained of a lump in her left side, which, she said, she had had before operation. It was found to be the kidney. It might have been a movable kidney which had slipped out of place during the manipulations, and become the subject of hydronephrosis. It was difficult to say in this case whether the kidney or the bladder trouble was primary; perhaps there was a papillary tumour of the pelvis of the kidney, which had caused infection in the bladder. The point he wished to lay stress upon was the distensibility of the female urethra; by the exercise of due care, a body of considerable size might be introduced into or removed through it, no incontinence following.

Dr. MANSELL MOULLIN thought it would be interesting

to see what was the nucleus of the calculus shown ; it seemed almost too hard for a phosphate. He could not agree with Mr. Reeves' views on the distension of the urethra ; he preferred to break up the stone. True, in 99 per cent. of cases there might be no bad result ; but in the odd case there was incontinence, and he was not sure whether the last state of such a patient was not worse than the first.

Dr. LEITH NAPIER asked whether in the second case an examination had been made with the ureterscope ; whether Mr. Reeves had any experience of the instrument ; and what his opinion was as to its value.

Dr. BANTOCK said he did not know why Mr. Reeves should prefer the supra-pubic to the vaginal method of operating ; for the latter, by making a vesico-vaginal fistula, was an easy and satisfactory procedure. In the second case he thought the origin of the disease was important ; but he regarded the view of infection of the bladder from a papillary growth in the kidney as far-fetched ; the disease spreads by continuity of tissue rather than by deposition of germs, so to speak.

Mr. REEVES, replying, said he thought that when Dr. Moullin had had a large experience of urethral cases he would come to have faith in dilatation of the passage. In answer to Dr. Napier's question, he had no experience of electric cystoscopy ; he had seen it done, and he had looked through the instrument ; but had failed to see anything. It was not wanted, however, for the female urethra.

Dr. NAPIER explained that his question related to ureteroscopy.

Mr. REEVES had not seen it practised ; nor did he think any definite results had been obtained by it.

The following paper was then read :—

Uterine Reflexes, Distant Lesions, and Remote Symptoms due to Uterine Irritation. By H. MACNAUGHTON JONES, M.D., M.A.O. (Honoris Causa) M.Ch., F.R.C.S.I. & E., Ex University Professor of Obstetrics, Queen's University, and Examiner in Obstetrics in the Royal University.

I must, in the first instance, express my obligation to the Fellows of this Society for setting aside an evening for the discussion of a paper written by one who feels how very inadequately he can deal with the subject he has taken in hand in the time at his disposal. And, next, let me briefly place before you my principal object in selecting for your consideration the subjects included in the title of this communication.

It may be that I feel myself, from the unavoidable circumstances of training and work, impelled to take a very wide and liberal view of the bearings of that department of medical science in which we are all here specially interested on the medical and surgical art as a whole, and thus to attach a peculiar significance to the important influences that a more specialised, and, therefore, more correct, knowledge of it may exert on the treatment of disease and ill-health generally, and to place a deeper importance than others may, on an accurate acquaintance with the diagnosis, consequences and treatment of diseases of the female pelvic viscera. I have ever insisted that such an acquaintance is an absolute necessity to the man or woman who undertakes the care of what is called "the general health of the woman," and I have deprecated any tendency to encourage the medical student, or intelligent practitioner, to regard the study of the diseases of women as one which does not demand as close and careful application as any other in the whole range of his professional knowledge. In fact, in the face of the advancements made in recent years in the treatment of the diseases of the sexual organs of women—both therapeutically and surgically—and having regard to the suffering that may be relieved, and the lives saved, when such diseased conditions

are early recognised or radically cured, I should be inclined to place gynæcology in the very foremost position of importance to the physician or surgeon in the practical application of his art, and with a view to his professional success.

When I speak thus, I do so, as is well known, from no narrow or prejudiced standpoint, but with a retrospect lasting over many years of as constant work in at least two or three other branches regarded as surgical specialities.

Not so long since, one of the ablest and most philosophical of English physicians—one whose merited attainment to the position of Regius Professor of Medicine in one of the great English universities has been received with general acclamation—delivered a series of lectures before the Royal College of Physicians in England on "Visceral Neuroses," in which a most able, if slightly biassed, onslaught was made on gynæcology and gynæcologists. Also, in his published preface to those lectures he delivered himself in characteristically severe language—not too severe, as he conceived the occasion demanded—of a denunciation of what he termed "specialism out-specialised." And, in a post-script to that preface, he did me the honour of referring to the preface to my "Manual of Diseases of Women" as a "pillar of support" to those who held like opinions on the mischief of modern specialism.

In this respect I have not deviated in the least from the views I then held on this matter. But it has ever appeared to me that however well merited the strictures contained in those lectures may have been, in certain instances brought within the individual knowledge of the lecturer, the conclusions which may have been drawn from them by prejudiced readers might possibly be most unjust.

I am not aware that any attempt has been made to reply to those strictures. Such a silence might be misinterpreted—and, I fear, has been regarded as a general acquiescence in the justice of them.

The advance of the science of gynæcology, from the time when its practical application might be summed up as "the

knowledge of a tubular speculum, familiarity with the use of the uterine sound, the replacement of a retroverted uterus, and the adjustment of a pessary" has been a rapid one.

Nor have so many years elapsed since the use of the speculum was regarded with a certain degree of suspicion by those who were pleased to call themselves "pure physicians," the inference perchance being that all who resorted to the speculum as a means of elucidating the nature of uterine disease had a taint of *impurity* about them.

And those who shrank from even a simple digital examination as a possible pollution of fingers educated only for gentle pressure on delicate wrists, or mild precordial percussions, or discreet palpatory abdominal meanderings, raised their hands in well-feigned Pecksniffian horror at the sight of a Fergusson's speculum. Even still, there are numbers of preeminently respectable physicians who do not hesitate, by silent shrug of shoulder, or less demonstrative orbicular movement, to signify their inherent doubts as to the necessity of local examinations and treatment, in those cases where uterine affections complicate more active symptoms arising in other organs, and which, in many instances, have diverted the attention of the medical adviser from their real source.

The main text of the utterances I have referred to, and on which the caustic indictments framed from its application were founded, might be summed up in the author's words: "A number of uterine disorders, elevated to the place and name of uterine diseases, are but manifestations of neurosis.

I am inclined to think that the readiness with which these strictures were at the time received, was added to by the "masterly inactivity" advocated just then by a few leading gynæcologists, notably one whose mechanical parturient skill and genius could not descend to new gynæcological notions, and who, himself no surgeon, viewed with horror and alarm the wave of rational and radical treatment which was only then beginning to sweep before it the ignorance and puerilities of an expiring race of obstetricians in matters purely gynæcological.

It will now be my object to endeavour to demonstrate the reverse of the picture so graphically painted by Professor Clifford Allbutt, in which he portrayed neuralgic, gastralgic, vertiginous and hysterical women as "entangled in the net of the gynæcologist," while indifference to, or possibly neglect of, the uterine malady of which they complained would have been more conducive to their physical and mental health, inasmuch as it was entirely secondary to some neurotic condition outside it, and on which it was dependent.

I acknowledge myself as sufficient of an advocate for that "gynæcological tyranny" complained of, to assert that in far the larger proportion of cases the terms "uterine neuralgia," "ovarian neuralgia," "irritable uterus," are used by men who overlook the pathological causes of neuralgia or irritation, whether uterine or ovarian, and whose touch has not been educated to diagnose morbid conditions of the uterus and adnexa; or who, secure in the self-complacency which refers every complaint of pain in a woman to what it is pleased to regard as a "neurosis" or "hysteria," is led into a contemptuous indifference to all references to local symptoms, and to under-rate the part taken by local lesions in producing those reflex disturbances of circulation and digestion of which they are unquestionably productive. And it is because I am so thoroughly at one with the belief of those who object to the modern refinements of "specialism out-specialised," and the further disintegration and differentiation of the study of the diseases of certain organs, and the development in each speciality of an *imperium in imperio*, or of the habit thus engendered of regarding disease of an organ as a matter to be dealt with only by some infallible expert in its diagnosis and treatment, that I earnestly protest against this inversion of cause and effect. I do this more especially in the instance of the uterus and ovaries, inasmuch as their complex and subtle physiological relationships, when these are functionally or organically disturbed, are made more immediately manifest in their effects on other organic functions, especially those of the nervous system, than is the case

with the other viscera. Also, it has to be remembered how variously constituted are different types of women to resist the effects and consequences of certain deviations from their normal conditions, and that the intensity of pain appears to be present in many instances in inverse ratio to the pathological conditions sought for to account for it.

It is no uncommon occurrence to find extensive ovarian, tubal, or uterine disease, and yet pain to be but little complained of. This is well known to be the case in uterine fibroids, where the earliest symptoms of distress are those due to mechanical pressure or interferences caused by the large size of the tumour. And the same remark applies to ovarian or parovarian cysts. In fact, so far as the disturbing element—pain—is concerned, we see it frequently in its greatest intensity where no morbid condition of the uterus is discernible, and it is equally true that ovarian pain and dysmenorrhœa occur constantly with but slight pathological changes to account for them.

One of the most desperate cases of dysmenorrhœa I have ever witnessed through the nerve storms which were produced at the menstrual period, and which was completely cured after years of duration by the removal of the ovaries, presented no evidence of disease in these organs further than slight sclerotic changes, and the appearance of that sago-grain degeneration which is familiar to us. On the other hand, I have frequently examined patients suffering from menorrhagia in whom I have discovered enlargement of the ovaries or hydrosalpinx, when pain was absent, or but little complained of, and cases of advanced malignant disease of the womb in which hæmorrhage alone was the symptom for which relief was sought; and again, various fibroid and fibrocystic growths maturing to a large size without any pain to speak of, occurring. Is it not, however, a matter of daily observation that local and general distress and constant wearying pains attend upon slight uterine affections, as displacements, small intramural uterine tumours, lacerations of the cervix, erosions, and periodical, though often trivial, inflammatory states of the parametrium?

I recently showed at this Society the adnexa of a patient who was reduced to a state of emaciation by suffering which had lasted for years, from which she is now free, the cause being a small paroöphoric cyst in either broad ligament; and I may here pause to remark how essential it is to the patient that an early diagnosis be arrived at, quite independent of the immediate good which may result by the indirect relief afforded to distant organs by the cure of local morbid states.

For do we not all know, by sad experience, of the years of useless suffering that might have been spared, of lives that might have been saved, of the ruin of conjugal happiness that might have been averted, of maternal usefulness that might have been preserved, had an accurate diagnosis been arrived at in the earlier stages of uterine disease, and a proper line of treatment adopted? Surely it would be safer in such cases for the practitioner to fall, even assuming that he does so, into the error of arguing from the local to the general, than into the greater blunder of ignoring the local in dealing with the general.

And we can only hope to achieve this important end in the treatment of diseases peculiar to women, when physicians and surgeons are brought to realise the distant bearing that even a comparatively trivial affection of her sexual organs produces on the general physical and mental well-being of the woman.

If this Gynæcological Society were brought into existence for no other purpose, and to achieve no other object, than to impress on general physicians and surgeons the importance of an accurate gynæcological diagnosis, so as to protect themselves from possible pit-falls and blunders, in being led off by acute symptoms, denoting functional affections in such organs as the brain, the eye, the nose, the heart, and the abdominal viscera, to regard these affections as due to causes other than those which may have their origin in the sexual organs, it would have amply justified the aims of its founders.

It is not necessary for me, in such a paper as this, to enter

at length into, or to discuss the anatomical and physiological facts bearing on this question. The connections between the vagina, uterus, and ovaries, through their nervous supplies, with the splanchnic nerves, and with the spinal cord in the sacral and lumbar regions, through the pelvic and hypogastric plexuses, may anatomically explain many of the reflex phenomena that follow upon stimulation or irritation of the ovarian and uterine nerves consequent upon disease in the ovaries or uterus.

The reflex connection between the mammary gland and the uterus, and between the sciatic nerve and the uterus, shows that this reflex association is established between the uterus and such a distant part as the nipple, and with peripheral nerve trunks, as those of the sciatic. And in whatever light we look upon ovulation, or the part played in it by the uterus and Fallopian tubes, and the various physiological effects brought about by it, through the medium of the nervous system, in the entire being of the woman, the consequences which follow a deviation or interruption of that process are but constantly recurring demonstrations of the physiological effects which are produced under this influence in almost every organ in her body.

As examples of this, we may take the occurrence of varying shades of optic neuritis and retinal irritation in connection with suppression or irregularity of the catamenia; neuralgic pains in the eyeball associated with the menstrual epoch, neuralgia of the supra- and infra-orbital nerves, slight epileptiform seizures of the facial muscles, toothache and dental neuralgia, laryngeal migraine and functional aphonia, or paresis of the intra-laryngeal muscles, milder forms of hypertrophic rhinitis, and similarly tinnitus aurium and vertigo, sympathetic neuralgia and temporary congestion of the mamma. And as a consequence of menstrual irregularities we find painful irritation of the dorsal and lumbar spinal zones, herpetic eruptions of the skin, functional irregularity of the cardiac rhythm, gastralgia and nausea, slight icteric attacks, atonic or irritable states of the intestines, irritation

of the bladder, with increased frequency of micturition, pains in the branches of the lumbar and sacral nerves ; varieties of headache, and severe hemicrania. All such symptoms may be accounted for by reflex vaso-dilating or vaso-contracting effects produced by irritation arising in the uterus or ovaries, as the result of arrested or imperfectly discharged physiological processes.

The ready response of the uterus to such stimuli as an anæmic blood current, or one in which there is an excess of carbonic acid, is an established physiological fact, and the influence of such reflex impressions as are conveyed by a cold hand on the abdomen, or friction of the mammary gland, has been obstetrically availed of from early times. How readily its catamenial functions are disturbed by such causes as mental or physical shock, cold and heat, we are all familiar with. So it must happen that an organ so susceptible to any direct or reflected stimuli, will, in the many varying states of a woman's health, or the accidental occurrences of her daily life, respond quickly to these influences. The physiological pain, and the much-debated "spasm" of dysmenorrhœa, having no apparent cause in ovary or uterus, but for which we find a ready explanation in an anæmic or toxæmic blood, as the cause of those contractions or "spasms" that attend on the "obstructive" form of dysmenorrhœa, are thus explained. It undoubtedly *is* true, as insisted on by Professor Clifford Allbutt, that the ill health of the woman is the cause of the ill health of the uterus in many cases. It is equally true that the ill health of the uterus or ovary is frequently the first step in the general deteriorating process, and as it originates so it maintains it. All we know of the physiology of uterine action compels us to regard the uterus and ovaries as the strongest links in the chain of the woman's health of mind and body. Weaken them as you may from without or within, and you immediately, but fundamentally, touch all the mainsprings of her life.

There is not one of these functional disturbances that I

have not from time to time seen and treated, in which the association with disorders of menstruation was not clearly to be traced. And if this be so in the instance of aberrant physiological functions, how much more likely are we to have such consequences following greater disturbances attended by gross changes in the uterus and adnexa. And this we find to be practically the case.

In prolonged disorders of the uterus, resulting in enlargement, hyperplastic deposits, or a process of fibrosis following on arrested involution, in those secondary pathological conditions attending upon lacerations of the cervix, in deep erosions, in unrelieved versions and flexions, in tubal enlargements and displacements, and in chronic affections of the ovary, as sequelæ of pregnancy, we find not only these reflex conditions present, but more aggravated pathological consequences and more serious disturbances of function. We see this exemplified in the eye in the results of thrombosis or embolism, as retinal infarctions or extravasations with their secondary consequences—atrophy and partial or complete loss of vision ; in the nose, in epistaxis, chronic nasal catarrhal states and perversions of smell ; in the ear, in labyrinthic apoplexy, with all the symptoms characteristic of Ménière's disease and labyrinthine vertigo and deafness ; in the brain, in hallucinations of smell and taste, illusions and delusions, from slight erraticisms in mental action to complete perversion of the mental faculties, and in the nervous system generally, in such evidences of instability as aggravated hysteria, neuralgias, hystero-epilepsy and epilepsy ; in the skin, in manifestations of such cutaneous nerve disturbances as occur in prurigo and herpes, or in the appearance of acne or eczema. The occurrence of nervous alopecia, and the aggravation periodically of any chronic cutaneous disorder, as for instance, psoriasis and erythematous lupus, are not infrequent results of menstrual disorders. In the heart, irritability in action and hæmic murmurs—conditions which frequently lead to a permanent hypertrophic state, or are felt through attacks of syncope,

with evidences of low vascular tension generally, as shown by an habitually compressible pulse—are common.

We find in the stomach, gastric irritation, with possible congestive changes which may lead up to gastric ulcer. There are atonic conditions of the bowel which tend to constipation on the one hand, or on the other to diarrhoea, while disordered sexual function and abnormal perimetric states frequently lead to congested conditions of the rectum, complicate hæmorrhoids, and are apt to produce that irritability of the sphincters so conducive to costiveness.

The important bearing of uterine affections on diseases of the rectum, and on operative interference for these, in preventing, as long as they are unrelieved, a successful issue from the latter, is well known to anyone who has had experience in rectal affections. Hence, in a great number of cases, the necessity imposed of delaying operation until the uterine affection has been rectified.

Apart from these more direct consequences of pelvic visceral disease, there are those indirect results that follow upon interference generally with metabolic changes in the various viscera, consequent upon abnormal states of the circulatory fluid, and in which defective ovarian or uterine functions react on such states as anæmia and chloræmia, thus altering the normal secreting functions of such organs as the liver and kidneys, and seriously interfering with the metabolic action of the spleen.

Whether such conditions are primary or secondary to the general state of health, dependent upon these interruptions, matters little to us as practical physicians. So long as we recognise the physiological game of battledore and shuttlecock they play in deteriorating the general state of health in the individual, we are bound to recognise and treat them.

It is cruel to a woman to style her "neurotic," "hysterical," or "hypochondriacal," while she suffers from any local affection of her pelvic viscera, which does thus accentuate or aggravate the ordinary consequences that attend upon any abnormal constitutional condition. It is something more

than injustice to her if we deliberately and complacently ignore the influence that such local disease exerts in exciting morbid impulses in her central nervous system.

I have gone to some trouble for the purposes of this paper to tabulate 270 cases of disease and abnormal conditions of the sexual organs in women, selecting those cases in which no special functional or organic troubles in any other organ were more particularly complained of, from a total of some 500, the notes of which I have perused. Amongst these I have passed over all cases in which were grosser changes, as large fibroids and ovarian cystoma. I here give a brief analysis of the associated mischiefs which, I believe, in the vast majority of the cases quoted, were secondary to the affections of the sexual organs. The comparative ages of these patients is roughly shown in this table :—

Under 20	...	...	...	...	7
20—30	...	...	...	...	90
30—40	...	...	...	...	102
40—50	...	...	...	...	63
50—53	...	...	...	...	8
					270

195 married ; 75 single.

It is sufficient for my object, in order to save time, to cite what I consider to have been the principal abnormal state present in each case. (In the more complete list which I furnish with this paper—too lengthy for publication in the *Journal*—the more important complications and local symptoms are noted.)

	Cases.
Retroversion, with or without flexion	55
Marked anteversion, with flexion...	11
Ovarian enlargement, with or without tubal affection ¹	23
Retroversion, with ovarian and tubal complications	11
Sub-involution of uterus	33

¹ No case of ordinary ovarian cystoma is included, nor of fibroid tumour of any size.

	Cases.
Erosion of cervix, with or without endocervicitis	22
Hypertrophic condition of uterus	6
Ditto, with ovarian complications	9
Endometritis, with and without ovarian complications	14
Extensive laceration of cervix	6
Stenosis, with congenital malformation	15
Small fibroid tumours	11
Intra-uterine polypus	2
Sarcoma of uterus	1
Symptoms incidental to menopause	29
As direct sequel to pregnancy	1
Suppression of catamenia... ..	18
Vaginismus	1
Absent perinæum	2
Total	270

Of the entire number quoted, fourteen were not submitted to local examination, and are included under the head of "Suppression of catamenia."

We turn now to the symptoms other than uterine or ovarian complained of in the 270 cases.

I have included no cases of malignant disease save one of sarcoma.

The following is a list of the principal signs and symptoms complained of by the 270 patients:—

Anæmia	19
Skin Affections (as eczema, erythema, acne, erythematous lupus, alopecia, psoriasis, prurigo	13
Head Symptoms (as aggravated headache, "fulness in the head," loss of memory)	53
Facial Neuralgia	15
Neurasthenia	45
Migraine	16
Mammary sympathies (as neuralgic pains, glandular changes)	6
Spinal pain and irritation	10
Intercostal neuralgia	25
Numbness of upper extremities	4
Numbness of lower extremities	4
Pain in upper extremities	2
Pain in lower extremities	9
Stiffness in ankles with each period	1
Catalepsy	2
Hysteria	13

	Cases.
Insomnia	15
Epilepsy	3
Tendency to melancholia, depression	9
Dementia	4
Agorophobia	1
Ophthalmic symptoms dependent upon abnormal retinal states (as optic neuritis, pathological changes in papilla, hyperæmia of retina, asthenopia)	15
Nasal symptoms due to turbinate congestion or hypertrophy ...	5
Laryngeal symptoms, as varying degrees of aphonia due to paresis of laryngeal muscles, hyperæmia of vocal cords	12
Æsophageal spasm	1
Thyroid enlargement	1
Tinnitus Aurium	7
Sickness and Nausea	5
Gastralgia	15
Dyspepsia	11
Cardiac symptoms (as irregularity of rhythm, intermission, dyspnœa, hæmic bruit)	33
Attacks simulating angina pectoris	1
Abdominal symptoms (as erratic pains, flatus, hepatic engorgement, dysenteric symptoms, diarrhœa)	17
Aggravated constipation	11
Pain and irritability of rectum	4
Vesical symptoms (as irritation, difficulty of retention or pain with micturition, vesical pain)	30
Difficulty of locomotion	24
Impairment of general health	54
Painful sitting	1
Epistaxis	2
Defective circulation—lividity of upper and lower extremities ...	2

Time does not allow of any exhaustive reference to, or any special selection of, the cases here referred to. Under the heading of "aggravated headache" should be frequently included some such symptoms as those described as "fulness in head," "pressure on head," "sense of tightness," and "flushings." Under that of neurasthenia I include those well-known unstable states of the nervous system generally which embrace various morbid apprehensions, fits of depression, uncertainties of sight and touch, disturbance of sleep, irritability or capriciousness of temper.

Under "difficulty of locomotion" I have only reckoned those cases in which there was a distinct inability to walk.

By "impairment of general health" I refer to such general conditions as "lassitude," "feeble circulation," "weak cardiac action," "alteration in the specific gravity of urine," "tendency to syncope," "loss of appetite," and proofs in the complexion and facial expression of great enfeeblement of the system.

I have thus endeavoured to produce some of the evidence which has convinced me of the fact that many distant lesions and remote symptoms are due to, and have their exciting cause in, uterine irritation.

Were I to go back over an equal number of such special affections as those peculiar to the ear, the eye, and the nose, I believe I should find a fair proportion of lesions in these organs in women to be associated with abnormal uterine conditions. I cite these three organs of special sense, as I have accumulated a larger experience of the causes leading up to their ill-health than has been possible for me in the instances of other organs.

But even from the table which I have read, it is sufficiently manifest that the throat and skin* have likewise their reflex relationships with the organs of generation in women.

The alternating and dominating influence exerted by body and mind over each other in maintaining or disturbing that healthful harmony essential to the preservation of a normal balance of power betwixt the two, is, in my opinion, nowhere better exhibited in the organism than by the effects produced in the nervous system of a woman by the ordinary physiological variations in the health of her sexual organs.

How far that harmony is influenced by functional or pathological deviations from a healthful state of these organs is, I think, shown clearly by the list of nervous affections I have just cited.

I have only, in conclusion, to apologise to you for the time

* The slight elevation of temperature in the skin during the catamenial period is a physiological fact worth remembering.

I have unavoidably occupied in treating of a subject by no means new to any of you, but which is, I maintain, even at this eleventh hour of sufficient importance to the profession at large to warrant a passing reminder of it.

Since writing this paper, I have had the following letter from Professor Clifford Allbutt, in response to a special request I sent him to be present at the reading of it. This letter was written during the extra pressure of the conduction of examinations, and with his permission I read it—and as it has been so read I append it to this paper in fairness to him. In his permission to make any use of it I may desire, he likewise says “he refers wholly to *small local disorders*, not to serious ones.”

“DEAR DR. MACNAUGHTON JONES,

“Very unfortunately I find myself tied by a fixed engagement on the evening of the 11th of May, or I would certainly have come up. There are many points which, after further experience, I would gladly discuss with experts.

“In my Gulstonian lectures I know there is exaggeration, or, at any rate, undue emphasis. But *then*, you know the tide was running strongly the opposite way. My present opinion is, that what sets up perturbation in one woman does not do so in another—that is, an abnormal state which would cause no discomfort, and would need no special treatment in one woman, may form a part of a chain of morbid revolutions in another. When you have such a chain—such a morbid series—the question often arises, ‘Where shall I cut the chain?’ ‘Which link can I cut out?’ Any one link may do.

“Take, for instance, a contracted sphincter ani or vesicæ; sometimes a dilatation will break the round of a morbid chain and set the patient free. In another person a tight sphincter may exist and do little harm or cause little or no discomfort. Much in these actions and reactions depends upon control by nervous centres.

“Or take, say, a heavy uterus in a flabby woman, with some catarrh. In one woman, this dragging upon the pelvic attachments sets up aching, which aching in its turn disheartens or even incapacitates her, and she mopes, shirks fresh air and exercise and dwells upon herself.

“To say the uterus is THE CAUSE of this state is very imperfectly true. Were there more powerful control in higher spinal and cerebral centres, the drag being the same, the aching would not appear in consciousness. In this latter state a general tonic plan would set all right without local interference. But in the aching woman you may do well to cut the chain, to break the series at the uterus or elsewhere, that is, to

support this organ temporarily, or even treat it by topical remedies. So true is it always that we must treat not diseases, but *persons*. We must study each by the law of concomitant variations, not by one factor in a series; although we may, by modifying this factor or that, break through a vicious circle. It is a matter of the individual case whether you trust to general measures, such as massage and overfeeding, change of air, and the like, to steady the whole system, and so, indirectly, all and each of its parts, or whether you must cut the vicious circle at some one point, and finally, if so, at which of several points this interference shall be made.

"It is a truism that we may put aside some local disorders by treatment applied not directly to them, but to some other part or parts which may or may not be diseased. The problem is, which is the cardinal local change, and I need not say that the cardinal local change need not be either the change most obvious to the physician or the one most troublesome to the patient. On the other hand, it is often unnecessary to decide which is the cardinal local change, as to cut any one link of the chain may suffice.

"Yours very truly,

"T. CLIFFORD ALLBUTT.

"*St. Rhadegunds,*

"*Cambridge.*"

Dr. BANTOCK considered that no apology was needed for time occupied in the reading of such a paper as Dr. Macnaughton Jones'. He had not listened to a more eloquent paper, or one that expressed his own views more closely. He would not, however, have let down Dr. Clifford Allbutt so gently as the lecturer had done. Not long after the delivery of the Gulstonian lectures referred to, the question was brought before the Medical Society of London, and he thought that on that occasion Dr. Allbutt quite surrendered his position—at least, he does not maintain it now. His own feeling had been that the views expressed in those lectures were in large measure the result of gynæcological ignorance; with more knowledge different views on neurosis would have been expressed. At the present time, when he heard a man talk much of neuroses, he always regarded it as in the main a cloak for ignorance, in much the same way as the liver, some years ago, was talked of as the common origin of all ailments. He could easily understand that there were many cases which, to a general practitioner ignorant of gynæcology, were

hard to solve. For example—some years ago a patient was sent to him complaining of pain in the foot. He suspected the mischief to lie in the pelvic organs, and on examination found induration of the cervix, and catarrh. Attention to these conditions cured the foot, to the patient's great surprise. He could recount case after case of the same kind. Quite lately he had seen a patient, between 40 and 50, mother of several children, who had been for a long time under the care of a specialist in nervous diseases. He found the uterus unhealthy, and under appropriate treatment all the nervous troubles speedily disappeared. Again, within the last two weeks he had been consulted by a lady who had been under the care of an eminent country surgeon for bladder troubles. Examination showed that the bladder was perfectly normal, but there was retroversion of the uterus. The organ was mobile, and a pessary kept it readily in its place. Relief followed immediately. Neuroses do not exist without a material cause, and in women, uterine disease plays a very important part, being, indeed, the most frequent cause of so-called neuroses.

Dr. ROUTH expressed the great pleasure he had derived from hearing the paper. He felt bound to praise its elegant diction, and, not less, its sterling common sense. He had always felt strongly against the exclusive tenets of the advocates of the neurosis doctrine. He might state, as the meeting at the Medical Society was referred to, that he was the author of the paper in question, and at that meeting Dr. Clifford Allbutt agreed with him almost in every point. Further, the wrong views on the subject of neurosis were partly due to the wrong feeling which certain physicians entertained about vaginal examinations, regarding the procedure as derogatory to the dignity of a physician. Unfortunately, he had had too many cases of severe headaches and other nervous troubles, which had been treated by various consultants as disturbances of liver, spleen, stomach, bladder—in fact, of every organ but the right one—and they all got well when the uterine troubles were attended to.

Once he had seen a case of homicidal mania in a married woman. She had attempted the life of her husband, to whom she was much attached. He felt persuaded when he saw her that she had some uterine disease, and, sure enough, examination revealed a large ulceration of the cervix and cavity. He treated it with caustics, and in three days she had recovered her sanity. So also, in many cases of dyspepsia, he had found the real cause of the trouble to be an ulceration or endometritis. Consequently, to maintain the neurotic view in many cases was to maintain an absurdity. He was far from justifying the lengths to which Baker Brown had gone in his indiscriminate recommendation of clitoridectomy, which had brought on him the censure of the profession; but he was a man, after all, of considerable insight, and had proved that in many cases masturbation was the source of all the nervous troubles, and often of epilepsy. And in this connection he would add a remark, suggested partly by Mr. Reeves' observations, and it was this—that it was not right to conclude that in all cases where there was much irritation and pruritus of the vulva, attempts that might be made by the patient to relieve that irritation were necessarily due to vicious habits. In conclusion, he strongly maintained that it was incumbent on all who wished to treat disease on rational principles, to remember the close connection that existed between diseases of the pelvic organs and disturbances of the nervous system.

Dr. EDIS proposed that, in view of the great importance of the subject, and the fact that they had to defend a position that had been vigorously assailed, the discussion should be adjourned to an extra meeting, to be held in fourteen days.

Dr. BEDFORD FENWICK seconded the proposal, which was carried.

The Society then adjourned.

THE BRITISH GYNÆCOLOGICAL SOCIETY.

THURSDAY, MAY 25, 1893.

F. BOWREMAN JESSETT, F.R.C.S., PRESIDENT, IN THE CHAIR.

PRESENT: 26 Fellows and Visitors.

Adjourned discussion on Dr. MACNAUGHTON JONES' paper.

Dr. EDIS, resuming the discussion, said he was glad Dr. Macnaughton Jones had brought up the subject, especially as there had been an attack on the motives of gynæcologists, which needed defending. At the International Medical Congress of 1881 he had himself read a paper, in which he went over much the same ground as Dr. Macnaughton Jones, but less exhaustively, as it was earlier in his career, when his experience was not so large. In that paper he considered especially the subject of dyspepsia, having seen a good many cases where patients came to him armed with numerous prescriptions from which they had obtained no relief; all their symptoms disappeared on attending to their pelvic troubles. He laid stress also on the analogy of the conditions of pregnancy. With reference to mental disturbances, he once saw a patient who had been in an asylum for two years. She was suffering from a retroflexion, with the usual congestion. Everything had been done for her except the one thing necessary; the local trouble being treated, she left the asylum cured within three months. Without entering into too many particulars, he would simply say that he approved *in toto* of Dr. Macnaughton Jones' position. He thought that if the general physicians knew more gynæcology, not only would the public benefit thereby, but we should gain in repute. The treatment that effected a cure must be right, especially if many other methods had already been tried and found

wanting. From this point of view the instances at the end of the paper were both instructive and conclusive. He thought that before a man began specialising he ought to have an all-round knowledge of medicine; by this means he would escape the charge of practising a specialism before he had mastered even the general knowledge of his profession, and of being a mere specialist and nothing more. To speak in detail of this subject of neurosis would be to repeat the remarks of Dr. Macnaughton Jones and his own of twelve years ago; but he would relate a case that had impressed him. He saw a patient who was suffering from sciatica; she had been the round of general physicians, and when the paroxysms were on they were as severe as a bad case of epileptic migraine. She had been married six years, but was sterile. On examination he found an anteflexed uterus with a pin-hole os. He divided the cervix, and kept the os dilated for a short time with a stem. All the symptoms forthwith disappeared, and finally she gave birth to a healthy child. Some of our best remedies had been discovered empirically, *e.g.*, bromide of potassium, which is the one effectual drug in epilepsy; it also has a marked effect in checking pelvic congestion. The connection between the two disorders is well exemplified by the fact that this drug is given with marked success to patients in asylums, who become excited and furious at the catamenial periods. Asthma and chorea were further instances of disorders often cured by attention to pelvic troubles. In conclusion, therefore, he would cordially endorse Dr. Macnaughton Jones' views, and was more than pleased with his paper.

Dr. BEDFORD FENWICK thought this was one of the most important subjects the Society could discuss, and he only regretted that Dr. Macnaughton Jones had not earlier taken up the cudgels on behalf of gynæcology. He would not now discuss Dr. Clifford Allbutt's lecture, but only remark how gratifying it was to find Dr. Allbutt proving his scientific knowledge and power—that is to say, his care for the truth—by admitting that in those lectures he had been in error

on some points, and on others had been led into generalising too largely. He thought that not only Dr. Macnaughton Jones but also the Society should be congratulated on a paper which could not but be of great importance both to medical men and to their patients; for he quite agreed with the view that, in the medical treatment of women, on the knowledge of the precise condition of their pelvic viscera hinges diagnosis, prognosis and treatment. He had taken the trouble to go through a large number of cases in his hospital case books, with a view to ascertaining how many patients, when they first present themselves, complain of symptoms directly associated with their pelvic troubles, and how many complain of something that has apparently no connection therewith. These were not selected cases, yet out of the whole number, all suffering from some pelvic trouble, only less than 10 per cent. laid any special stress upon symptoms associated directly with their uterine organs. This was a fact of great importance, especially as the cases were at a special hospital. The largest number complained of gastric and chest troubles; the next largest, of interference with the vascular system, either flushes or anæmia, the extremes of high and low vascular tension. Time would not allow of his elaborating his cases, but there were some of them that seemed to him remarkable as showing how easily one might be misled by reflex symptoms. One, for example, was sent to him for obstinate obstruction. Her doctor had come finally to the conclusion that she must be suffering from malignant disease of the cæcum, the stools were so small and thin. He found a retroflexed uterus with fibroid growths. The treatment adopted was rest in bed, with the hips raised and vaginal douches. The uterus probably rose under this treatment into the abdomen, for when he last heard of the patient all signs of obstruction had disappeared. Of cardiac disturbances due to uterine disease he had had considerable experience. At the Victoria Park Chest Hospital many patients came complaining of heart symptoms, in whom the uterus was the only organ at fault. For example, one woman had

suffered from anæmia and palpitation for four and a-half years. She had a polypus of the uterus, but had never been examined, and the anæmia had resisted all treatment. After removal of the polypus the palpitation and anæmia rapidly disappeared. Another case was sent to him for renal disease. She died in the hospital; both kidneys were truly cystic, and the ureters blocked, but the cause was a large fibroid of the uterus which had been overlooked. In such a case it must be felt that an earlier diagnosis would have led to better treatment. Lately, a young married woman was sent to him, thin and wasted. Phthisis was suspected. On inquiry it was found that she had had a difficult instrumental labour, and examination showed a uterus quite prolapsed with erosion of the cervix, the constant congestion causing hæmorrhage and discomfort. Her life had been a misery to her, but she had refrained from false delicacy from complaining about her uterine trouble. He felt a special pleasure in this case, because the only treatment adopted was one which had been much ridiculed at the time of Dr. Allbutt's lectures. He simply "perched the uterus on a prop," or, in other words, inserted a Zwank pessary, and with the result that she speedily and completely regained her health and strength. He had seen one or two cases with much apparent connection between ovarian trouble and mental disorder, and in each case the patient improved, and recovered her mental powers, after removal of the ovaries. At the same time, he felt very strongly that we had not yet sufficient knowledge or experience of these cases to be sure whether alterations in the cerebral substance was directly dependent on the ovarian disease; and it seemed to him to be driving a supposition too far to remove the ovaries of every woman of unsound mind, as it has been recently proposed to do. Finally, he felt confident that it would save patients much suffering, and practitioners much perplexity, if they made it a rule to always examine the pelvic viscera in all married women who had any disease of other organs.

Dr. MACNAUGHTON JONES—The following "notes" were

courteously sent to me by Dr. Robert Barnes (Hon. President of the British Gynæcological Society), on receipt of the revise of my paper, inasmuch as he was unable to take part in this special debate:—

"A fundamental, let us hope not incurable, error possesses those who specially neglect the study of the physiology and pathology of women themselves, and refuse to accept the testimony of others who, looking upon gynæcology as an integral part of medical science, embrace its study. This is to pass over as of no importance the disorders and diseases of the ruling organs of woman, finding arbitrary solution of her symptoms in the vague terms neurosis and hysteria, or neuralgia.

"It may be, as some have conjectured, that there is a peculiar nervous temperament out of which may be developed epilepsy, hysteria, chorea, or insanity, the particular form the nervous disorder may assume being determined by accidental circumstances. There may be such a thing as an hysterical constitution; but of this I am not convinced. I see epileptics who are quite free from hysteria and *vice versa*. What we are most concerned with is to know that howsoever obscure the intimate physical condition upon which these nervous disorders depend, these nervous disorders may never become manifest, in short, may have no other than a potential existence, unless certain new conditions be introduced. These new or adventitious conditions are not necessarily inherent in the system. If they be warded off or removed where they have effected a footing, the nervous disorders may be averted or cured. This means that we must direct at least a large part of our remedial forces, not against the nervous disorder, the hysteria or neuralgia for example, as if it were a self-supporting morbid entity, but against the *accidental and removable*, exciting or maintaining causes. Where we cannot discover such causes, or where we fail to dislodge them, we may be reduced to treat the symptoms, the epilepsy, hysteria or neuralgia, as a disease.

"It is not much to tell us, as some physicians do who neglect the organic study of the diseases of women, that hysteria, for example, is a disease of the brain, and is not dependent upon disorder of the ovaries or uterus. So long as they refuse to these organs similar methods of precise observations to those which modern science applies to the study of the other organs, they cannot be credited with the knowledge necessary to give authority to their assertion. They may treat the brain, they may strive to restore the blood to soundness, to bring the digestive organs into order—all this they may do with about as much success as is achieved in keeping a leaky boat afloat by baling out the water, taking no heed of the leak. It is like the labour of the Danaïds—they treat a symptom not the reality. The cause not recognised, persists, and yet they expect the consequences to cease. Poor woman is the victim of their special mode of practice. Thus I have known an eminent urinary

specialist treat a case of hæmaturia with drugs and false hopes, in which local examination revealed a cancerous opening into the bladder from the cervix uteri. Who shall tell what numbers of poor women are at this moment shut up in asylums, some of whose sufferings, if not caused, are certainly aggravated by disease, or it may be simply disorder, of the sexual organs. I have long held that a commission of inquiry *ad hoc* ought in justice to be instituted. This, no doubt, to many will appear a startling proposition, but I venture to think that where medicine is pursued in the proper spirit it will be carried out."

Mr. W. D. SPANTON: I have read with the greatest pleasure the report of Dr. Macnaughton Jones' paper introducing this subject, because his views are, in the main, entirely in accord with my own. A wide experience of many years, extending over all branches of medical and surgical work, has convinced me that the cause of a large number of reflex and sympathetic symptoms is too often overlooked, while it is, of course, of the first importance to the patient that this should be discovered as early as possible.

No doubt many felt, as I did, at the time Dr. Clifford Allbutt's statements were made, that they were unduly severe—in fact, scarcely justifiable; and it is at least gratifying to know that a longer and wider experience has led the author to considerably modify them. It is all very well to attempt to subordinate local uterine and ovarian changes to others which may form links in the long chain of neuroses which we have to consider, but it occurs to me that this chain is often one with a padlock attached, and if we can unlock that, surely it is not needful to go further.

Dr. Macnaughton Jones has enumerated with precision and clearness the very numerous ways in which this chain may be formed round the victim; but someone must be to blame for not having discovered earlier where the original error occurred.

Gynæcologists may congratulate themselves, in spite of the criticism to which they are subjected, on having done good service to womankind in this particular. It must have occurred to most men in general practice to meet with cases having a local uterine or ovarian origin treated for weeks and

months on general principles, perhaps by a *very pure* physician, but still getting steadily worse.

I could instance many, but would specially refer to some which made a deep impression upon me at the time—an impression which longer experience and wider knowledge has only served to deepen. One was that of a young lady, about 23 years of age, who had been suffering from more or less gastric disturbance from the time the catamenia commenced. When I saw her, this had been so severe as to cause attacks of violent vomiting, lasting four or five days, just before or during the catamenial period, with the usual pain and distress of severe dysmenorrhœa. Sedatives had little or no effect, and I was summoned one night to see her in one of these attacks.

She was pinched and collapsed, sickness was perfectly uncontrollable, pulse was hardly to be felt, it was quite evident she was suffering agony. Seeing the state of affairs of course I insisted on an examination, and found congenital stenosis of the cervix. Under an anæsthetic I divided and dilated the cervix, and from that time all the former symptoms ceased.

Now, this unfortunate lady had been called neurotic, hysterical, and fifty other things to describe her neurasthenic state. She had been treated on general principles in all sorts of ways, and yet persisted in getting steadily worse. I venture to say that if what I then thought proper and necessary had been done years before she would never have gone through the misery she had to endure.

A short time since I saw a lady in consultation who was also suffering from the most intractable and incessant sickness, which had lasted about a month—in fact, from the time when the catamenia had stopped. She was supposed to have gastric ulcer, and was being treated accordingly. At the time I was asked to see her she was quite unable to retain any food whatever, and was reduced to a condition of the most extreme weakness. On examination I found a slight enlargement of the uterus, and felt sure there was

some abnormal pregnancy. We dilated the uterus, and found the cavity empty, but in the orifice of one Fallopian tube was an apoplectic ovum of about four or five weeks. This came away, and the sickness ceased, but the patient died a few days after from pure exhaustion. There was no hæmorrhage. Now in this case again a physical examination might have prevented much valuable time being lost, and the patient's life might have been saved.

Another singular case I met with where a patient was treated for a long time by various medical men for so-called functional amenorrhœa. She seemed in perfect health. No physical examination had been made by any of them, but one who thought himself a little more sagacious than the rest suggested that marriage would put her right. So she was married, and when I was asked to see her some time after I found no sign of any uterus or ovaries, and the vagina was a blind pouch. Luckily the husband was an easy-going man, and having taken her "for better, for worse," thought it right to abide by his bargain. But such a disgraceful neglect of a physician's clear duty might have led to a sensational case in the Divorce Court, and have brought disrepute on our profession.

One almost ludicrous instance occurred to me, where the *noli me tangere* doctrine was carried out to the full.

A young lady, under the care of a *most* pure physician, was said to have an abdominal tumour—of what kind he did not venture to say, for he appears never to have examined it except by those "discreet palpatory abdominal meanderings" Dr. Jones speaks of, but this tumour necessitated her going to another purely medical physician for a further opinion, and the result was that this rather attractive and very young lady was kept under the observation of these gentlemen in a well-known watering place for six months; but the tumour remained and she came home. Her parents wished her to go again for a further period of observation, but I urged an examination under chloroform. We found absolutely nothing, everything was perfectly normal, and it was a case of pure

hysterical tympanites. I ordered her to lead an active life, and so on, and in a few weeks we heard no more of the tumour, and she has been since perfectly well.

This is not an unfair example of what pure medical treatment in the dark leads to—or rather may lead to—for I am perfectly convinced that the young patient would have been converted very soon into a typical example of a neurasthenic and most interesting invalid.

The more one sees of these cases, the more the conviction grows that the dislike of many practitioners to probe them, and shirk their duty with regard to them, is because they know very little about what they might find, and fear to display their ignorance. But is that a valid reason why those who can clear up the doubt should be held up to approbrium?

I am quite convinced that infinitely more harm is done by ignoring the uterine and ovarian origin of the reflex trouble under discussion than by any amount of the abuse of the methods of diagnosis, or exaggeration of local treatment adopted. If the woman's special organs are at fault, I do not see why they should not be treated. If a man has a urethral stricture most of us would not treat it, as I once saw a case treated, by "globules" for six months. If he has epididymitis, surely that too needs local treatment, although in each of these instances the chief complaint will probably be of the reflex rather than direct symptoms. Of one thing we may be quite certain—that the greatest success will attend the practice of those who make it a first essential to get to the root of the patient's trouble (and in women we all know where that is most likely to be found), and not to be deterred by false sentiment, or the jealousies of those who would rather keep their patients in their own hands than see them cured by others, from doing what we know to be our duty.

Dr. MANSELL MOULLIN commended Dr. Macnaughton Jones' paper, as showing much consideration and thought, and with the broad generalities therein he could not do other-

wise than agree. Dr. Jones told them that there was hardly a disease under the sun which might not in some way be connected with, or aggravated by, or depend upon, uterine or ovarian trouble, either functional or organic. The moral of the story was that they were to bear this fact in mind, and when called upon to treat a case in which acute symptoms pointed to disease in some distant organ, to be careful to eliminate pelvic mischief as a possible factor in the circumstances of the case. So far, so good. With a broad generality of this kind they were all agreed. It was only when Dr. Macnaughton Jones descended to particulars and examples that it was seen his paper presented points that were open to attack, and it appeared probable that in some instances, at any rate, he was somewhat overstating the case. The connection between optic neuritis and retinal hæmorrhage on the one hand, and prolonged uterine trouble and chronic ovarian disease on the other, was to him not very apparent. The same might be said of "nervous alopecia"—a term which in itself appeared to him to be open to objection. The pathology of alopecia was not understood, and the term "nervous" was a mere cloak to conceal that fact. Anyhow, if it was of nervous origin, there were certain well-known characteristics which pointed in an opposite direction, and would have to be explained away. It occurred as often in children as in adults. It followed the course of no special nerve, but occurred in patches all over the head and parts covered by hair. The patches themselves were sharply defined and circular, with sometimes an unaffected part in the centre.

Passing over the pathology of alopecia, he said that if called upon to treat such a case, he much doubted that he should, unless very definite symptoms pointed to pelvic trouble, make a vaginal examination, and if he did on those grounds, and found some disease there which, other treatment failing, necessitated removal of the ovaries, he should not operate in the expectation of its having any effect upon the alopecia. Such would be the natural course to adopt if Dr. Macnaughton Jones' argument was followed out to its logical

conclusion. He did not wish to find fault with the paper, but only with the looseness of expression in it. With regard to gastric ulcer, it was well known that it was met with more often in women than in men. An explanation had been suggested, that it might be connected with disappointment, leading to loss of appetite, atony of the stomach, dyspepsia, and general inanition, and so to gastritis and ultimate thrombosis. The whole subject was simply conjecture. He objected to the statement that irritability of the sphincter was conducive to costiveness.

He was sorry that Dr. Macnaughton Jones had not entered more fully into particulars than he had done. He hoped that before long they might have the advantage of hearing his views on the connection of epilepsy and hystero-epilepsy with the menstrual function, and its treatment by oöphorectomy.

Dr. MORTON wished to speak as a general practitioner, since this was essentially a matter for them also. Most general practitioners would, he thought, be found to agree with Dr. Macnaughton Jones, who was a specialist in so many departments that he might almost be looked on as a "glorified general practitioner"—a term of honour, and applicable to several men of great eminence. There was truth in the pure physician's view that "a number of uterine disorders, elevated to the place and name of uterine diseases, are but manifestations of neurosis;" but at the same time it must be remembered that the neurosis itself may be kept up by a pelvic condition. There was truth also in the gynæcologist's views that a break-down of the general health of the woman may be due to pelvic mischief; but the woman's general health might re-act on the pelvic organs, and frustrate treatment. The general practitioner was in the best position to see all the consecutive links in the chain, and take in the vicious circle as a whole. While pure physicians were, no doubt, open to the charge of "contemptuous indifference to all references to local symptoms," the pure gynæcologist was open to that of showing some impatience of subjective symptoms; indeed, one eminent gynæcologist had announced

that the first thing to be done when called in was to put aside altogether the whole history given by the family doctor.

As regards the paper, there was little to criticise; but there had been no mention made of an important disease often associated with pelvic disorders—viz., rheumatoid arthritis, the relation of which was first pointed out by Dr. William Ord. He thought Dr. Macnaughton Jones had perhaps cast his net a little too wide in including thrombosis in distant organs, though this was often seen in connection with puerperal cases. Exception might also be taken to the inclusion of hæmic murmurs, as these occurred with loss of blood from any cause, besides uterine hæmorrhage. The paper did not refer to the acne of adolescence, which was an illustration of the connection between the skin and the generative organs; this was also exemplified in older life by the acne seen in thin sterile women with dysmenorrhœa. Lastly, one important disease remained to be mentioned, viz., inebriety, which often had a close connection with uterine troubles, and supplied another well-marked example of the vicious circle, these troubles leading to alcoholism, and it again re-acting unfavourably on the pelvic organs.

Dr. TRAVERS wished to make a few remarks in defence of the "pure physician," who had been attacked with some vigour. In the 'fifties, gynæcology was not taught as a specialty, and it was very difficult to obtain a proper knowledge of it; in fact, in 1865, after ten years' studentship, including seven years' residence in his own hospital, he had not learnt any gynæcology. The assistant physician was not then even allowed a speculum or a sound. This would account in a measure for the position of some of the pure physicians of more than twenty years' standing. Between the first and second readings of this paper he had seen two cases; one had been seen by a physician for eleven years, and treated with every kindness and consideration, but a Hodge pessary cured her in three months. The other had been under treatment for eight years, and had spent much on physicians; a Graily Hewitt pessary cured her in a short

time. The great advance that had been made in the position of gynæcology was shown by the fact that when the College of Surgeons began examining in midwifery, some thirty-five years ago, it was much looked down on for doing so. In conclusion, he wished to protest against the use of the expression "change of life." Too often when a woman was suffering from some pelvic disorder at the time of the menopause, the case was dismissed without examination as one of "change of life;" and as a consequence the term proved not uncommonly to be simply a label for malignant disease and other serious conditions. He thought that gynæcologists should do their best to discourage the expression.

Dr. LEITH NAPIER remarked that even in his own more recent student days he had to be content to pick up crumbs of gynæcological knowledge, and so he could quite endorse the remarks of Dr. Travers on this subject. He wished to direct further attention to the line of criticism of Dr. Mansell Moullin. Like him, he thought that the conclusions of the paper could not be accepted in their entirety. For instance, while Dr. Macnaughton Jones thought it was "cruel" to put down a case as hysteria when there were pelvic troubles, 13 out of his 270 cases were set down as hysteria. Again, in only half of all the cases was the author able to account for the symptoms present, by the presence of uterine troubles. He thought a more scientific term was wanted than "impairment of general health;" yet this accounted for 20 per cent. of the cases. And how could Dr. Macnaughton Jones be sure that all these cases were due directly to uterine troubles, unless he could tell them that they were all cured by local treatment? Only 5 of the 270 cases had sickness; yet this was generally a rather common symptom with uterine disease; whilst in the first table at the end of the paper there were 188 cases which might be classified roughly as "pelvic congestion." He could not but think that Dr. Macnaughton Jones had pleaded somewhat beyond the conviction of the jury. His own belief was this, as summed up by Marshall Hall, "The whole question of abor-

tion and parturition, and in a word, of obstetrics as a science, is one of the true spinal system." On these lines Tyler Smith had dealt with the matter from a higher point of view than any other writer he knew. Three years ago he had himself written a paper on "Neuralgia and Abortion," and he was bound to say that in studying this subject he had come across a good deal of speculation but very little clinical evidence; and too often, he thought, we had missed the substance in pursuing the shadow. In the paper referred to, he deduced that there were two great classes of neuralgia—(1) those due to reflex irritation; (2) those due to constitutional conditions. He would suggest that if Dr. Macnaughton Jones would adopt some such basis of classification he would satisfy both the gynæcologist and the pure physician; the one would recognise one class of conditions, and the other would accept the other, whilst the wider-minded man would recognise both.

Dr. HEYWOOD SMITH held that this subject, like all others, should be dealt with on scientific lines. As to the position of the pure physicians, the mistake they made was that they considered that men and women were alike as far as the treatment of disease was concerned. But it was not so; here also the woman was made for the man, not the man for the woman. The woman was built up for the sake of the organs of generation, just as a flower was built for the development of fruit. But women themselves differed; so that the same impression on the organs of generation which makes a serious reflex impression on one, makes very little impression on another; and round these organs the whole nervous system is intimately built up. As many of the symptoms of pelvic disorder were reflex, and not directly pelvic, those who had studied gynæcology had come to recognise them as landmarks, *e.g.*, umbilical pain as an indication of disease of the fundus. It had also struck him that while among the author's 270 cases there were 50 to 60 cases of headache and allied symptoms, the cases of nausea, epistaxis, mammary pain, &c., seemed to be too little represented. As regards

the mammary pain, when we consider the effect of suckling, and the relationship between mammary and ovarian pain, we must regard this as an instance of a reflex within the circle of the organs of generation ; because he thought the mammary glands were to be considered as a part of the organs of generation. It was to be remembered, also, that it was not necessary that these reflexes should occur within the period of the menstrual life ; they occurred also after the menopause. Dr. Macnaughton Jones had said that "whilst the general health influenced the condition of the pelvic organs, it was equally true that the pelvic organs influenced the general health." But he should say it was *more* true, and that it should be looked upon as a golden rule—which general practitioners ought also to bear in mind—that whenever a patient complained of remote functional disturbances, a vaginal examination should be asked for. Rheumatic arthritis had been mentioned by one of the speakers, and he thought it might in many cases be associated with gouty uterus. He agreed with Dr. Travers' remarks about the "change of life." It should be laid down as an axiom that when a woman had ceased to menstruate for one or two years, and a coloured discharge came on, suspicion should at once go to the uterus. There were some cases which presented difficulties—*e.g.*, he had under observation a patient with chronic cervicitis, who had had trouble with the ovary. At times the ovary could be apparently readily felt, but not at other times, but he found that both the ovaries were really small, and that it was the tubes that were sometimes felt. They were sealed up at the ends, and the relaxation at the time of the menstrual molimen gave rise to the intermittent flow, and such cases might account for the differences of opinion that sometimes obtained. It would be a good thing to try to lay down definite rules by dissections in such cases.

Dr. HODGSON thought that disparaging remarks made by one branch of the profession about another tended to widen the breach, without proportionate advantage. The law was the most powerful profession, and the secret lay in

the fact that they kept well united together. He would like to offer one suggestion. First, we must accept the fact that the general physician is a high-minded and honourable man. If we accept this, we may bring him over to our way of thinking. Too often the leading gynæcologists chose for comment cases that had come to them from the general physicians, laying an undue emphasis upon them.

Dr. JAMISON observed that in all reflex functional disturbances there was mimicry of other diseases. The question was, how were we to separate accurately the two varieties? *e.g.*, a patient suffered from leucorrhœa and pain over one ovary, and it was suggested that the proper treatment was removal of the offending ovary; but the case was really one of peripheral neuritis due to alcohol. Gynæcologists should make more of a study of the nervous side of the question; in fact, the whole subject of neuritis wanted working out from the gynæcological as well as from the alcoholic side. As regards alopecia, he had a case which got well on treating the accompanying pelvic disorder. Though women had special organs, the course of disease was really the same in these organs as was the course of disease anywhere else; and in any case of pain or other reflex phenomena, not only should the pelvis be examined, but all the general conditions should be inquired into.

The PRESIDENT, while agreeing that the lecture by Dr. Clifford Allbutt, referred to in the author's paper, was greatly exaggerated, thought that Dr. Macnaughton Jones had somewhat overstepped the mark on the other side. He regretted that there were so few general physicians present, as possibly they might have related cases which they had cured, after being treated unsuccessfully by the gynæcologist. During a long experience in general practice before settling in London as a consultant, he had seen many such cases. In one instance he knew of a young lady who had been kept on her back for several months by a leading gynæcologist, to the detriment of her general health, without any good results whatever. He saw the patient, and advised that she should

travel and exert herself, and by general treatment her health rapidly improved. Dr. Macnaughton Jones had spoken of dysmenorrhœa treated successfully by removal of the appendages and ovaries; he (the President) also had had cases of this kind in which this treatment was successful. He had, however, performed the operation on other cases who presented just the same symptoms as those who had been relieved by the operation, and had been greatly disappointed that no amelioration of symptoms followed. In fact these latter cases had derived no benefit from the operation, so it was important to remember that oöphorectomy will not cure all these cases. As regards acne, prurigo, herpes, &c., if these were all put down as being due to pelvic disorders, he thought gynecologists would have rather a good time of it. But how were we to account for such cases in the male? The same remark applied to head symptoms, defects of memory, chronic rhinitis, &c. He agreed with a former speaker that it would be interesting to hear the results in all these cases. For while it seemed that in many instances these symptoms might depend on other causes, a cure following on pelvic treatment would be a strong proof that they really might be traced to pelvic disorders.

Dr. MACNAUGHTON JONES briefly replied, and the Society adjourned.

THE BRITISH GYNÆCOLOGICAL SOCIETY.

THURSDAY, JUNE 8, 1893.

F. BOWREMAN JESSETT, F.R.C.S., PRESIDENT, IN THE CHAIR.

PRESENT: 36 Fellows and Visitors.

Mr. J. Walker Smythe was proposed for election, and Dr. Kirkby was elected as a Fellow of the Society.

Dr. SPANTON showed the specimens and gave the notes of the following case:—

Tubo-ovarian gestation. Retro-uterine Hæmatocele.—Elizabeth Wild, aged 31. Patient admitted May 9, 1893, complaining of pain in back and abdomen, of bearing down character; the pain is worse on right side of abdomen and extends into the buttock.

Present illness began five weeks before admission (May 9). The onset was quite sudden, while patient was in bed, and began with pain in back and right side of abdomen; it was very severe and caused her to vomit; it was better the next morning so she did not remain in bed, but was unable to work on account of the pain.

During the last twelve months health has not been good, being troubled at times with sickness and headache. Illness began three months after last period. A week after the onset of illness patient had a "slight show," which lasted three days. Since then there has been bleeding on two occasions with a few days interval; this stopped on May 2, and on May 9, on examination, it was found that there was a reddish brown sticky discharge which continued for a week.

Previously had always been quite regular. One child five years ago; says she had slight inflammation after it in the left side; was in bed three weeks after confinement; no instruments used.

P. G., healthy looking woman. Abdomen is of normal size and quite symmetrical. There is a small, hard, roundish tumour, about the size of a fist, rising up from the pelvis in the middle line and extending upwards as far as two and a-half inches below umbilicus. On the right side of this and above it is a small elastic swelling which reaches almost to level of umbilicus on the right of the middle line, its limits, however, cannot be very accurately defined. Percussion dull over swelling.

Vaginal examination.—On introducing finger there is felt a large soft elastic swelling, protruding into vagina through Douglas's pouch, it is fluctuating and by pressing on abdomen an impulse is received by finger in vagina.

The cervix is high up, and pushed straight forward by swelling, so that it is difficult to find as it is situated behind the upper part of the pelvis. By pressing on the cervix the small tumour in middle line of abdomen is felt to move, and is evidently a somewhat enlarged uterus.

May 19.—Operation, ether. Mr. Spanton performed abdominal section. On opening abdomen the uterus was seen as it pressed forward and touched the abdominal wall; it was somewhat enlarged; on turning up some omentum there appeared on the right side, and above the uterus, a purplish soft swelling covered by peritoneum, the contents of this were partly withdrawn by aspirator, and consisted of brownish-coloured blood, and the remaining fluid was removed by means of sponges on holders; the cavity went straight down and backwards into the pelvis.

The right tube was traced outwards from the uterus, and at the ovarian end was a fleshy mass which had the appearance of being partly composed of ovary. This was ligatured with the tube by means of silk tied in a Staffordshire knot and removed. The edges of the peritoneum, from which the fluid had been withdrawn, were next sutured to the lower part of the abdominal wound and the upper part was closed. A drainage tube, fully six inches long, was passed down into the hæmatocele cyst.

May 25.—All sutures removed; is doing well; the tube has not been removed, but the contents which consist of blood-stained serum are drawn off twice daily; during the first three days nearly an ounce was removed at each dressing.

May 29.—The exudation has greatly decreased, about 3ss removed.

June 2.—Tube removed, very little discharge, not purulent. Parts removed consisted of right Fallopian tube with broad ligament, ovary and fleshy mass of which the ovary formed part. The tube was about normal in size, and a fine probe could be passed along it as far as the uterine end, but here it was blocked. (?) At the ovarian end the tube was "torn through," probably by forceps put on it during removal.

The fimbriated extremity was matted around the anterior part of the fleshy mass of the gestation, and the probe passed into the tube could be felt from the inside of the gestation cavity. The ovary formed the lower part of the mass, and the upper part of it was stretched out over the anterior surface of the gestation; in this part of the ovary is a mature Graëffian follicle, and half an inch below it an elongated swelling on the surface of ovary; this on section shows a corpus luteum of pregnancy, measuring five eighths of an inch in length; the convoluted edge was very well marked and of bright yellow colour, and inside it was a cavity.

[At the ovarian end of the Fallopian tube on the anterior surface of the broad ligament there is a small pedunculated hydatid (anatomical).] The wall of the gestation was somewhat lacerated during removal; the swelling measures from one to two inches in diameter, and the wall which is fleshy, is just one quarter inch in thickness. The cavity is lined by a thin membrane, which is in part detached. No trace of embryo could be found. The hæmatocoele contained fluid blood of a dark purplish brown colour, and some friable clots; it was sub-peritoneal apparently and filled Douglas's pouch.

The patient is now quite convalescent. For the notes of the case I am indebted to Dr. D. Drew, House Surgeon to the North Staffordshire Infirmary.

It was proposed by Dr. Leith Napier, seconded by Dr. Travers, and resolved, that the specimen should be referred to the Pathological Committee.

The following paper was then read :—

The Operative Treatment of Vaginal, Uterine and Ovarian Displacements. By A. D. LEITH NAPIER, M.D., M.R.C.P., etc., Physician to Out-patients, Chelsea Hospital for Women.

The surgical treatment of prolapse of the genital organs has within recent years become established as a safe and satisfactory procedure. I do not propose to discuss the use of pessaries in this paper ; nor can I afford space to dwell on the class of cases which may be more expediently treated by pessaries than by operation. It is true that certain patients who are the subjects of uterine retroflexion and ovarian prolapse may be cured without surgical interference, and that so long as the perinæum preserves its tone and the vulva are narrow it is right to give pessaries a fair trial before subjecting the patients to operation ; yet it must be admitted that in the great majority of cases we cannot hope to establish a radical cure even by the continuous employment of pessaries, astringent douches, abdominal belts, perineal pads, and the numberless arts and devices of minor gynæcology. Nor shall I occupy time by considering the etiology or pathology of the conditions for which operations prove curative, but proceed to the subject matter of my paper without preamble.

Vaginal displacements comprise minor and major degrees of prolapse of the posterior and anterior walls ; posterior are more usually met with than anterior vaginal prolapses. Rectocele is very commonly associated with deficiency of the perinæum, or more particularly of the pad of muscular and cellular tissues known in books as the perineal body. Minor degrees of rectocele do not occasion much discomfort, and may be left alone unless co-existing with other troublesome conditions.

Operative treatment for rectocele.—Finding from clinical experience that rectocele seldom attains great size if the perinæum is intact and of good tone, many surgeons content themselves by performing perinæorrhaphy. This operation need not be described except in so far as it bears on the operations of colpo-perinæorrhaphy. The two methods most in favour are the flap splitting operation of Tait, and the paring or denuding operation. In the latter, two methods of suturing are used, viz., the interrupted and buried suture, and the so-called "purse string" suture. These three operations are so well known and described in all recent text books that we need only mention them. Lawson Tait's operation is excellent when the rectum is not torn into; should this be the case, the application of separate rectal sutures of chromicised catgut greatly strengthens the prospects of permanent success. It seems also an advantage to run the upper suture through the lower edge of the flap of tissue dissected up. A combination of the "purse string" and "buried interrupted" suturing is better than either of these methods by itself.

Colpo-perinæorrhaphy is an extended perinæorrhaphy in which the denudation is carried for two to three and a half inches up the posterior vaginal wall. Many methods have been described, but we shall only now concern ourselves with three, Hegar's, Martin's, and Doléris'. The two first named are extended and modified from the "interrupted buried suture" perinæorrhaphy, the latter is based on the "flap-splitting" method.

Hegar's operation consists of a denudation of the posterior vaginal wall, which is of the shape of an isosceles triangle, from three to three and a half inches broad at its base, which is close to the fourchette, and meeting about three inches up the vagina. In some cases of large prolapse a still larger denudation will be required. There are two or three points of importance in the management of the operation. Raise the anterior wall with a Sims's or Simon's speculum, fix the centre of the posterior wall at the point where the acute angle of the triangle is to be formed, also fix the edges of the

base with forceps at each side, and let the middle of the side lines be likewise marked off with forceps. The vulva are held apart by the assistant's fingers, and when the forceps are drawn on, the space to be dissected off is made tense. In lining out the triangle it should be made concave at its base and slightly convex inwards on the two sides. Different methods of suturing may be employed to bring the said edges into apposition—either deep interrupted silver and superficial silk worm gut, or continuous catgut sutures in layers.

Martin's operation aims at preserving the vaginal mucous membrane ; and further is accompanied by less hæmorrhage as the raw surfaces, while equally large, are in three different portions, and are finally sutured without loss of tissue. This operation consists of two parts, the first being a double denudation of two narrow flaps ; the second, the formation of a raised surface, which becomes lozenge-shaped after being pulled on. "Two small lateral flaps are marked out in the vertical axis of the vagina ; these reach to within an inch of the fourchette, and extend some two or more inches up the vagina. After freshening the surfaces they are sutured with continuous catgut in superposed layers." The second stage is rather less easily described. "A transverse incision is made a little above the fourchette, cutting through the column of the vagina and reaching on each side up to the vaginal ring. From the end of this incision, one starts making another concentric incision, going off at an acute angle from it towards the base of the labia minora, where it joins the vertical incisions previously described. In this way there is obtained a transverse flap, shaped as a crescent, with its concavity upwards when it is in a state of rest, and which, when it has its extremities pulled on, takes the shape of a lozenge." (Operators who know Duke's method of perinæorrhaphy will follow this.) "The flap has to be dissected if the wound is united by continuous catgut sutures in layers."

This operation, like many other plastic procedures, can be much more rapidly understood by one demonstration than by the most lengthy explanations.

Dolérís' operation is essentially Tait's "flap-splitting" carried higher, and the flap cut off.

A modification of this consists in removing only part of the flap, passing a catgut suture through the lower edge of the flap and then through the raised surface deeply, and denuding the vagina by a separate denudation above the flap. I have recently employed a single circular suture, as in Stoltz's operation for cystocele, for the upper denudation, and have obtained satisfactory results.

But it is important to note that if rectocele is associated with uterine prolapse we can seldom expect a permanent cure, unless we do something more than strengthen the perinæum and narrow the vagina.

Operations for Cystocele.—The operations for prolapse of the anterior vaginal wall, into which the bladder bulges, consist in the removal of a portion of the vaginal mucous membrane and close suturing of the raised surface. Experience has proved that the operations of Sims and Emmet, or any of their modifications, do not stand the pressure of a prolapsed superincumbent uterus. But cystocele may exist without, or with only a minor degree of, uterine prolapse; and in such cases, when pessaries fail to cure, which is generally the case, anterior colporrhaphy should be resorted to. A simple method is to seize the anterior wall with two or three pairs of forceps, one about an inch from the cervix and the other an inch and a half from the meatus urinarius, the fold thus formed is pulled on by one or two pairs of long bladed forceps, and the mucous membrane cut off by scissors. The objection to this method is, that the narrowing being in the vertical axis, the vagina is apt to become stretched either by any uterine prolapse, or, in the married, during connection.

In 1887¹ I described a method of anterior colporrhaphy which in some degree resembles the more recently recommended operation of A. Martin for posterior vaginal prolapse. But I now think that the difficulty in effecting the method I

¹ *Trans. Edin. Obstet. Soc.*, vol. xii., p. 87.

introduced is a real objection to its general adoption. I have every confidence in stating that Stoltz's operation is, so far as our present knowledge goes, the most satisfactory operation for cystocele. Because it may fail in cystocele when this is *plus* uterine prolapse and rectocele, there is no ground for believing that it is inferior, nay, it is distinctly superior, to any other anterior colporrhaphy. In a recent number of the *British Medical Journal*¹ I published a paper giving particulars of my modification of Stoltz's procedure. Briefly, the method I follow is:—A sound is introduced into the bladder; the anterior vaginal mucous surface is fixed with forceps, a superficial circular incision, varying with the size of the prolapsed surface, is marked out; a Hagedorn needle, bearing a stout silk thread, is introduced half an inch below the meatus, and slightly to its right side; the needle is carried round outside the marked line of incision and the suture kept as much buried as possible; it finally emerges to the left side of the meatus. The denudation is then made, commencing usually at the margin nearest the meatus. The sound is withdrawn from the bladder; a clean sound presses the denuded part upwards and inwards; the circular ligature is pulled tight and firmly tied.

Combined Operations for Rectocele and Cystocele.—As vaginal prolapses are often associated with uterine prolapses and as the latter frequently seem to be a result of the former, and further, as we have seldom a marked rectocele without some degree of cystocele or *vice versa*, it is often necessary to operate on both vaginal walls simultaneously, and it may be to perform an operation on the cervix or uterus which we will hereafter consider. For cystocele and rectocele we may advantageously use Stoltz's operation and a colpo-perinæorrhaphy such as Hegar's or Doléris' at one sitting. In the majority of marked cystoceles the perinæum is found lax, but except that perinæorrhaphy may make it practicable to derive benefit from the use of a pessary the operation of itself is

¹ April 8th, 1893, No. 1684, p. 740.

here of insignificant value. Complete closure of the vagina in elderly women, suturing the lowest point of the anterior vaginal wall to the upper part of its posterior wall, and various other procedures of like nature have been employed. Léon Le Fort¹ has devised a simple and intelligible method of dealing with such conditions.

Le Fort's operation requires reduction of the size of the prolapsed uterus; this is attained by rest in bed and other suitable treatment. Before operation the uterus is made to protrude from the vulva, so as to determine the extent of the surfaces to be rawed. At the time of operating, the uterus is reduced, the vulva separated, two transverse incisions made on the anterior and posterior walls at the lowest point where they are then in contact; these incisions form the lower limit of the two raw surfaces. The incisions are now rawed for two and a half inches or more vertically and about an inch in breadth; one should not make the rawed surfaces too broad, otherwise it will be difficult to get them into exact apposition. No great depth is needed, nothing more than a bleeding surface should be aimed at. The sutures are passed, the first one goes through the middle of the raw surface nearest the uterus; when tightened, this reduces the vaginal prolapse. When the extreme upper and lower ends are brought into contact, the edges are sutured. Le Fort used silver wire sutures. The suture inserted through the mucous membrane in the direction of the wound on one of the vaginal walls passes out through this wound, and then into the other wound to come out again through the mucous membrane on the opposite side of the vagina. Sutures are left in for fifteen days, or even for twenty-one days. Personally, I have had no experience of this operation. Of forty cases thirty-five are claimed as successful, thirty-one after one operation. Coitus and parturition are not prevented. One of the patients operated on, was delivered at term; the septum had to be cut at the time of the confinement. Modifications have been pro-

¹ *Bull. de Therap.*, April 30th, 1877.

posed as follows. About three inches of surface between the cervix and the vulva is freshened, and catgut sutures are used instead of silver. Le Fort's operation is not wholly free from risk; the peritoneum has been wounded posteriorly, and Tillaux reports one death resulting from this.

Operations for Uterine Displacements.—The uterine displacements of greatest surgical interest are retroflexions and prolapses. So that I may not leave the matter incomplete, let me refer very briefly to the surgery of ante flexion. When congenital ante flexion exists, one generally finds a conical cervix and a pin hole, or at all events stenosed, os. The late Sir James Y. Simpson introduced the practice of dividing the os bi-laterally. Marion Sims and Emmet did so posteriorly, and many imitators have followed them. Dudley has described a plastic operation for the purpose of straightening the ante flexed uterus which appears more remarkable for its operative complications than likely to be of use. The modern surgical feeling tends to one of two methods, viz., treating the stenoses by dilatation, by bougies, or, if an operation is to be done, amputating the cervix by anterior and posterior conical flaps. Bi-conical amputation, however, seems to be more applicable to conditions of cervical hypertrophy than to simple elongation. A circular amputation is more rapidly effected, but the risk of subsequent undue contraction is greater. Whichever method is followed we must see that the cervix remains freely pervious after operation.

Operations for Backward Displacements.—Retroflexions and retroversions may be esteemed as the same surgically. Retroflexion with uterine descent demands most consideration as it unquestionably occasions far greater discomfort and is much less amenable to palliative measures than either retroflexion or retroversion without prolapse. We will then assume that retroflexion with prolapse is of primary importance and discuss it fully. We, following Trélat, will classify these as reducible, resisting, and adherent, and add a fourth class, adherent with prolapse of the uterine adnexa. It must

also be remembered that rectocele or cystocele or both, frequently precede or follow the uterine displacement.

Before determining to operate on a retro-displaced uterus we must decide on the existence or non-existence of metritis. Few sub-acute retroflexions are free from metritis, many are associated with metro-salpingitis, most with some prolapse of one or both ovaries. Unquestionably the contiguous organs and the uterus itself should be treated for any inflammatory complication before we attempt to replace the organ. Hot douching, ichthyol vaginal tampons, abdominal counter irritation and rest in bed should constitute the first measures of relief. If the uterus is hyperplastic and the periods profuse we must curette the endometrium after dilatation of the cervix. One word of caution: should there be any suspicion of acute or sub-acute tubal inflammation the curettage must be postponed. Pessaries should be tried after the inflammation has subsided; if supports have failed previous to curetting they may subsequently prove useful. But in many instances the most patient use of pessaries proves unsatisfactory. In the reducible variety of retroflexions the softness and extreme mobility of the uterus may explain its recurring malposition; when, combined with softness and enlargement of the uterus, there is laxity or displacement of the vaginal walls and deficiency of support from the perineal body, the pessary is almost sure to fail.

Resistent retroflexions may be due to slight adhesions, or to chronic inflammatory changes of the uterine tissue, which increase its bulk and harden it. Schultze¹ has advised and practised a method of separating the adhesions, which prevent the replacement of the uterus, which seems to have proved successful in his hands. After dilatation he introduces his finger into the uterine cavity, and by a separation of his hands tears the posterior uterine adhesions, so that the fundus is brought to the front. A few other surgeons have followed

¹ "Displacements of the Uterus" (*Translation*, 1888, and *Centr. J. Gyn.*, 1879, No. 3, p. 49).

his recommendation, others have most vigorously opposed it. It is certainly a risky procedure if there should be any salpingitis, and even experienced gynæcologists may do more harm than good by this somewhat reckless method. If one could precisely define the nature and extent of the adhesions and exclude the possibility of salpingitis, a trial of Schultze's plan, under an anæsthetic, might be made. At the best it can only succeed when the adhesions are fine and of definite shape—a general posterior matting could not be thus separated.

Among the best known operations for mobile or slightly adherent retroflexions, we may first consider Alexander's operation for shortening the round ligaments, whereby the uterus is lifted up and drawn on. The Alexander-Adams, or as French authors like to call it, the Alquié-Alexander Adams' operation, has been very fully described by Dr. Alexander,¹ in our Journal for 1885, and a careful perusal of this article will be more profitable than a renewed description. Briefly, the operation consists in cutting down on the round ligaments, reaching these structures through the inguinal ring, pulling taut the ligaments, suturing the tightened ligaments, having previously cut off their chafed portions, and closing the wound. Through Dr. Alexander's courtesy, I saw him perform the operation in 1887, and all I can say is he did it so well that if other surgeons found it as easy as he seemed to do, and also found the results satisfactory, the wonder is, that after having been tried by so many operators during the last ten years, it has not become a generally recognised practice. It is just to add that there seems to have been a recent revival of its popularity in France and in America. Polk, who reported fifty-two cases in 1890, however, finds that in extreme cases of retroflexion, with prolapsed and tender ovaries, benefit is only temporary. The operation gives its best results in uncomplicated retroversion. In prolapse its warmest advocates are less satisfied with it; if a subsequent colporrhaphy

¹ BRIT. GYN. JOURN., vol. i., p. 246.

is performed, it is probable that more uniformly satisfactory effects would follow. Other operations on the round ligaments will be discussed when dealing with ventro-fixation.

Operations in which the sutures are introduced per vaginam.

—Schücking¹ has devised a plan of vaginal fixation. He fixes the fundus uteri to the vesico-uterine *cul de sac*. A long needle on handle, holding a double thread, is passed into the reduced and dilated uterus, and pierces the vaginal *cul de sac*, which is depressed; the needle is passed beneath the right pubic bone, its point is protruded at the fundus and not lower down on the anterior wall. A round button is placed on the cervical end of the thread, otherwise it may cut through the anterior lip of the cervix. P. Zweifel² modifies the operation by primarily opening the anterior *cul de sac*. Schücking reports sixty-two cases, the last forty-three of which are claimed to be "without a failure." Sängner has another modification: a transverse opening is made into both the anterior *cul de sac* and into the peritoneal *cul de sac* behind the bladder, and the body of the uterus is fixed to the vagina with silver wire; the vaginal wound is closed so as to allow the cervix to fall backwards. Sängner's other proposal of causing adhesions by opening Douglas's pouch and plugging the space formerly occupied by the retroflexed fundus with gauze; and still more, his additional proposal, to inject alcohol so as to produce inflammatory retraction of the utero-sacral ligaments and retro-cervical cellular tissue and consequent anteversion of the uterus, suggests a possible latter state immeasurably worse than the former displacement.

Freund's³ operation is not more attractive. A large opening is made into the posterior vaginal *cul de sac*, the peritoneum is opened and the posterior surface of the supra vaginal portion of the cervix is sutured to the serous covering over the sacral promontory. Douglas's pouch is plugged with

¹ *Centr. f. Gyn.*, March, 1888, No. 12, p. 181, and No. 42, p. 682.

² *Ibid.*, 1890, No. 39, p. 689.

³ *Ibid.*, 1889, No. 30, p. 515.

iodoform gauze and the vaginal wound closed. There is considerable risk of wounding the rectum. It may be necessary to perform a subsequent perinæorrhaphy. This is another "cure" as bad as the disease. Freund has done this operation twice, but it seems much too risky to be lightly undertaken, and is probably never likely to be seriously tried by any one else.

In 1890 I described¹ a method of utero-fixation, which I find is very similar to the operation of Prof. Candela,² of Valence. I have only once practised it, and although it seemed successful, I had no opportunity of judging its results fairly, as the patient died shortly after from a return of bronchitis and aggravated heart disease, from which she had previously suffered. In this case two silk sutures were passed *per vaginam* through the fundus uteri and brought outside the abdominal skin and tied. The plan of using intra-uterine glass discs, which I suggested in the article referred to, I have not since resorted to.

On the whole, colpo-hysteropexy, of which I might cite many other varieties, is not so safe and simple and satisfactory as gastro-hysteropexy, or as it is now usually named in England, ventro-fixation of the uterus.

Abdominal Operations for Uterine retro-Displacements.—Ventro-fixation may be extra- or intra-peritoneal. The disadvantages of the former are obvious. Still, when we find operators of the eminence of Halberstema³ of Utrecht, Kaltenbach of Giessen, Professors Assaky, Crespi, and Howard-Kelly, who have operated in different manners, and with some excellent results, it is desirable to mention the method. A very clear diagram⁴ given by Badouin clearly illustrates Kelly's "extra-peritoneal" method. The uterus was pushed

¹ "A New Modification of Hysterorrhaphy for Senile Procerdentia." Braithwaite's Retrospect, 1890, July to December.

² Annual of the Universal Medical Sciences, vol. ii., F. 6, 1890, and Badouin, "Hysteropexie," p. 108, Paris, 1890.

³ Badouin, "Hysteropexie," p. 112.

⁴ *Ibid.*, p. 106.

up against the abdominal wall, and retained in this position. A large needle was then passed through the skin and whole thickness of the abdominal parietes, pierced the fundus, passing through its anterior wall, and thereby fixed the organ. Kelly's three cases, however, do not warrant much belief in his method, for we learn that all three were eventually operated on by the intra-peritoneal method; one of them had twice been subjected to extra-peritoneal hysteropexy.¹ Kelly has now definitely abandoned the extra- for the intra-peritoneal operation.

The practical objections which pertain to either the vaginal-uterine or the extra-peritoneal abdomino-uterine operations are, as I have said, obvious. Should adhesions exist they cannot be rectified, except by Schultze's plan, and as we have seen firm adhesions resist this, and possible salpingitis prohibits it. Further, the bladder or intestine may be easily wounded or fixed into the new adherence. The possibility of infecting the peritoneum is quite as great as in the intra-peritoneal operation. Those who believe that the extra-peritoneal operation is contra-indicated in retroflexion, but preferable in prolapse, overlook the fact that with the exception of the difficulty from adhesions, all the other objections pertain equally. In mobile retro-versions, if we are to trust to a true extra-peritoneal procedure, Alexander's operation will be safer and probably more reliable. M. Terrier has said regarding extra-peritoneal hysteropexy, "Elle doit disparaître aujourd'hui," and we heartily agree with him.

Intra-Peritoneal Operations.—These are of two great classes: the one indirect, aiming at uterine fixation by operations on its ligaments; the other direct, requiring direct uterine fixation. A third class might be mentioned in which the uterus has been suspended, either directly through its wall, or by its ligaments, or by an ovarian pedicle, &c., in course of a distinct operation. Tait, Kalténbach, Klotz Kelly, Sänger, Czerny, Pozzi, Brennecke, Werth, Phillips,

¹ "John Hopkins Hospital Bull." Baltimore, 1889-90.

&c., have had such experience. Most of these cases were operated on for other conditions, but Phillips's¹ case was undertaken on account of recurrent prolapse which colporrhaphy had failed to cure. He removed a diseased ovary and suspended the uterus by its pedicles. The same procedure was probably effected first by Sims² in 1875, then Kœberlé in 1877,³ then Schröder in 1879,⁴ and Tait⁵ in 1880, each of whom operated in this manner. But such cases, while of historical importance, are not directly pertinent to the conservative operations which do not require removal of any part of the uterine organs. I resist the temptation of tracing the further historical progress of ventro-fixation, and would refer those interested to Badouin's⁶ exhaustive bibliography brought down to 1890, and to recent text books, notably Pozzi's⁷ excellent work, which deal fully with the subject.

Operations on the Ligaments.—W. Gill Wylie, Ruggi, Bode, Polk and Dudley operate on the round ligaments after opening the abdomen. Others recommend shortening the broad ligaments, and Kelly of Baltimore, and Frommel of Erlangen, have shortened the utero-sacral ligaments. Shortening the broad ligaments is not either so easy nor likely to be so helpful as either of the other methods, and although Frommel was satisfied with his one experience, published in 1890, we have no further facts adduced in favour of shortening the utero-sacral ligaments, which is exactly what we anticipated. Gill Wylie's⁸ operation consists in opening the abdomen, pulling out the round ligament on each side, raising the internal surfaces, folding the ligaments each on itself, and fixing them in this position by three threads.

¹ *Lancet*, October 20, 1888, p. 760.

² *Brit. Med. Jour.*, December 10, 1877, p. 840.

³ *Gaz. Med. de Strasburg*, No. 3, March 1, 1877, p. 28.

⁴ *Berl. Klin. Woch.*, 1879, No. 1, p. 91, and Badouin, *loc. cit.*

⁵ "Diseases of the Ovaries," 4th edition, p. 95 and 96.

⁶ Marcel Badouin, "Hysteropexie," Paris, 1890.

⁷ *Traité de Gynécologie, clinique et opératoire*, Paris, 1890, p. 493.

⁸ *American Jour. of Obstet.*, 1889, v. 22, p. 478.

Ruggi's operation, dating from 1886, is on much the same principle, except that he introduces a catgut suture through the outward end of the ligament and through the peritoneal fold surrounding it, knots it, passes the catgut through the uterine end of the ligament, which is now twisted on itself, and thus brought together. Continuous suturing maintains the fold. Bode's operation is slightly different; by it the ligament is raised, folded and surrounded by the suture, which is then knotted and brought through the uterine horn, and the two ends tied together. Polk¹ brings the two round ligaments together in front of the uterus, and sews them together after freshening their edges. Palmer Dudley has a still more complicated operation; he sews the uterine ends of the ligaments to the anterior surface of the uterus.

Bode's and Dudley's operations may be at once rejected, for they require the uterus to be entered by the ligatures, and are, therefore, equally dangerous, more difficult, and less likely to maintain a permanent fixation than the direct methods. The operations of Ruggi, Wylie and Polk, postulate that the malposition is due to the relaxation of the round ligaments alone, and that these structures are healthy. One fails to see that any intra-peritoneal operation on the ligaments is in any degree safer or so likely to effect a cure as direct uterine fixation. We have only mentioned these methods lest anyone should be tempted to try them from a mistaken notion of their being preferable to those now to be discussed.

OPERATIONS INVOLVING DIRECT CORPOREAL UTERINE FIXATION.

(1) *Lateral Fixation.*—The sutures are introduced on each side away from the fundus uteri, but on a level with its lateral border. This is essentially the Olshausen-Sänger

¹ *Trans Amer. Gyn. Soc.*, Philadelphia, vol. 14, p. 250. *American Jour. Obstet.*, December, 1898, p. 1336.

operation first described by Olshausen and popularised by Sanger. There is some danger of wounding the epigastric artery and Fallopian tube, also the anterior serous fold may be easily included in the ligature. The sutures cannot give a very good hold on the uterus, and the strain on the upper suture must always be considerable. There must also be an aperture left between the uterus and the abdominal wall which might permit subsequent intestinal strangulation.

(2) *Direct Median Uterine Fixation.*—This is unquestionably the simplest and most secure method. Leopold's, Czerny's and Terrier's operations vary but little in detail. Leopold brings the uterine sutures right through the whole thickness of the abdominal parietes and removes these threads in a fortnight. He scrapes the peritoneal covering of the uterus in the vicinity of his sutures, tries to merely remove the epithelium and avoid hemorrhage. Czerny uses two uterine sutures which are buried in the recti muscles after being brought through the peritoneum and intervening fascia.

Terrier's operation is a variety of Czerny's; three threads are used, and the threads are not wholly buried in their course through the uterine tissue. As my operation closely resembles Terrier's, although it was performed quite independently of any knowledge of the details of his, I shall give a detailed account of my own, and merely state that Terrier's and my procedure differ, inasmuch as he uses a temporary thread through the fundus by which he drags the uterus upward. I make permanent use of this thread, as hereafter described; he uses a drainage tube, I do not. Pozzi prefers the use of a continuous suture of strong fine silk which is passed in a spiral fashion from below upwards, the lowest and upper parts of the suture pass through the serous fibrous and muscular coats of the abdominal wall; the middle portion also through the superficial layer of the uterus in the middle line. Three or four uterine stitches suffice. A "fine but strong silk thread" is employed for suturing the uterus. Prior to fixing it by suture the body of the uterus is temporarily fixed with volsella forceps placed superficially in the middle line of

the fundus. Pozzi believes that the teeth of the instrument here get a firm grasp without causing hæmorrhage. We object to the volsella; not only is it likely to cause hæmorrhage, but should it be used to drag up the uterus before all adhesions are separated digitally, it may do much harm.

The operation I practise consists of the following stages: (1) Opening the abdomen in the ordinary way; a two or two and a-half inches incision is usually sufficient. (2) Introducing two fingers, freeing any adhesions either by fingers or partly by sponge on holder, bringing up uterus in front of middle and index fingers. (3) Supporting uterus with fingers or sponge, passing a suture (chromicised catgut No. 3, or No. 2, or medium silk) through the fundus uteri entering the wall pretty deeply, and by means of this suture dragging the freed uterus upwards. Other two sutures of silk worm gut, or preferably chromic catgut, are now introduced through the deeper abdominal layer and the front of the uterus, one as low down on the corpus uteri as possible, the second midway between the lower and upper sutures; neither of these is tied till later. The sutures pass only through the edge of the rectus, but take a firm hold of the serous and fibrous structures. The divided parietal peritoneum below the level of the lowest uterine thread is sutured with the ordinary deep abdominal silk worm gut suture. The abdominal sutures immediately in front of the uterus pass through skin and superficial fascia and preferably take a slight hold of the muscle layer. The upper uterine thread is now passed through each side of the abdominal wall from within outwards, embracing serous, fibrous, and the edges of the muscular layers, and is tied; then the middle and then the lowest thread is secured. The peritoneum is carefully sponged. (4) The abdominal sutures are now tied; these should be closely placed and care taken in approximating the skin edges so that healing by first intention may be obtained. Strapping is applied with dry gauze dressing, pads, and a many tailed bandage.

I reserve the results I and my colleagues have obtained for

another paper. Suffice it to say that these have been highly satisfactory in thirteen out of fourteen cases thus operated on.

Theoretical objections against intra-abdominal uterine fixation are confuted by clinical experience. C. Braun testifies that Kœberlé's patient had her uterus quite in place ten years after operation; Leopold has been able to verify cures after three years. Others have had less satisfactory experience, but faulty and inadequate methods must be taken into account.

Pregnancy can occur and be smoothly continued to term, as proved by several cases recorded. One of my patients upon whom I operated on Feb. 25, 1891, has been recently delivered naturally at term. At least fifteen such well authenticated cases are published, or are personally known of by me.

The mortality after this operation was low; in the words of Pozzi, it "is not more serious than an uncomplicated laparotomy which really constitutes a benign operation." Still some cases of death have happened, as have also occurred after Alexander's operation or even after the very simplest vaginal operations.

Operations for Uterine Prolapse by ventrofixation are esteemed to be less satisfactory than for retroflexions. This is partly to be accounted for by the earlier imperfect methods of operating, and possibly, partly by neglect of preliminary measures of treatment by which an inflamed cervix or corpus is first restored to health. Further, it is unreasonable to expect that all varieties of genital prolapse can be cured by uterine ventrofixation. Subsequent colpo-perinæorrhaphy, anterior colporrhaphy, or cervical amputation may be required to rectify vaginal or cervical complications. So far as my present knowledge of the subject extends, I believe that uterine descent in the so-called simple prolapse axis can be radically cured by intra-abdominal fixation, if intelligent attention is paid to the requirements of each individual case.

Operations for Ovarian Prolapse.—It has always appeared to me that to remove a healthy prolapsed ovary was a surgical crime. By suturing the uterus, or should there be no marked uterine descent, the peritoneum of the ovary (the meso-salpinx),

to the abdominal wall we will suspend the ovary in its normal position, release it from the pressure of a retro-displaced uterus, and permit the patient to retain her organs with perfect relief from her former causes of pain. It is true that pelvic adhesions and salpingitis often complicate ovarian prolapse. If after exploratory laparotomy we find the tubes or ovaries undoubtedly diseased, then their removal is good surgery; but if there is no tubal or ovarian disease, we should content ourselves with freeing the adhesions and bringing the uterus or ovary up to the abdominal wall and suturing it there. If a healthy ovary was found to be prolapsed and the uterus was in normal position, and if from the existing symptoms operation seemed justified, the prolapsed ovary might be suspended by lateral fixation of the uterus as originally practised by Olshausen or by such methods as Kelly's,¹ Ruggi's, Wylie or Polk's. In 235 operations for backward displacements of the uterus, marked prolapse of the ovary was noted in thirteen cases; in eight of these the ovaries were found diseased and removed, in five the ovaries were healthy and were left. Kelly's second method of hysterorrhaphy, which is specially applied to shortening the utero-ovarian ligaments, might be, theoretically, the best procedure for simple prolapse of a healthy ovary.

Such then are the newer methods of operative treatment for genital displacements. I fear that the variety of operations which I have ventured to discuss, and the necessary brevity which I have been obliged to observe in discussing them, may give occasion to the thought that I have been somewhat biassed in pronouncing judgments concerning some of them. The absence of detailed clinical data must not be regarded as due to the non-existence of such experience; this phase of the subject will, I trust, be more amply brought before the profession shortly, by the publication of a series of cases which I have previously alluded to in the course of this paper. If I have been able to awaken sufficient interest in my subject to secure the free expression of opinion

¹ Badouin, p. 141.

of this Society I shall have fully succeeded in the task I have attempted.

Dr. JOHN PHILLIPS rose at the president's invitation, and said that he had had but a small experience of operations for displacements; but he believed he published the first case in which intra-peritoneal fixation was done intentionally. But it was not a true ventro-fixation. He had intended to fix the Fallopian tube to the abdominal wall, but on operating he found an ovarian cyst, which he removed, and then stitched the stump to the abdominal wall. She was relieved for eighteen months, and then returned, and in a second operation he removed some of the peritoneum from the anterior wall of the abdomen, fixing the uterus thereto. Since that she had kept well for five years, and was well now. In any case requiring hysteropexy, he should prefer uterine to ovarian fixation. But a simple retroflexion gave no important symptoms, and he should not operate for it. He had not performed the Alexander-Adams' operation on a patient, but had done it six times on the cadaver. He had experienced considerable difficulty in finding the ligaments, and so had never felt justified in performing the operation on the living.

He thought the breaking down of adhesions was a very grave question, but he should have liked to know the results, which was the only way of judging of such a procedure. Before a patient could be considered cured, she should have remained three years free from symptoms. He thought the method of ventrofixation described by Dr. Napier was the best for the cases requiring hysteropexy.

Dr. HEYWOOD SMITH had found Stoltz' operation very successful for vaginal prolapse. He thought he was the first to do the operation in England, Professor Stoltz himself being present, and the case did very well. But he had seen instances also in which it failed—probably for want of tone in the woman. He thought Duke's perinæorrhaphy was an improvement on Tait's, as requiring no dissection after the first incision. Operations for ante flexion were usually unsuccessful, if dilatation was alone done, owing to subsequent

contraction. To prevent this the cervix should be first incised and then dilated. He had performed one operation for retroflexion, in which the uterus was bound down by adhesions in the form of contracted ligaments; in that case he passed a knife up behind the uterus, and nicked the uterosacral ligaments. The device was successful. With regard to ventrofixation, he believed he was the first to operate *ad hoc*. He did not know the date of Dr. Phillips' operation, and if it was earlier than his own, he would be quite prepared to withdraw this claim. His patient was a widow of 30; the vagina was very large, and there was much retroflexion and prolapse. Everything had been tried, including the use of the largest pessaries, but without avail. On June 24, 1880, he operated. Abdominal incision, three inches; the uterus was steadied, by the finger of an assistant, in the vagina. A silk suture was passed from the abdomen, buried for three-quarters of an inch in the uterus, brought out again and tied. Six sutures were employed to close the wound. The uterine stitch was removed on the eighth day, and the cure was complete. He had seen the patient from time to time since. He called special attention to the date of his operation, because Terrier in France had got the credit of its being his method; but Terrier's first operation was later than his own.

Dr. LYCETT (Wolverhampton) said that he was much interested in Dr. Leith Napier's paper, because it was a critical review, and a record of operative experience. He was doing a service in bringing the subject before the Society, as there was a special need for work of this kind, and the surgical mind was at present very unsettled about these cases, which were indeed numerous, generally old-standing, and often of a distressing nature. Results frequently caused indecision as to the best methods of procedure, which was in a great measure due to the variety and complications of the conditions met with. Objection is raised by some that many of these operations are attended with risk, especially those involving the peritoneum, and in order to remedy some of the pathological conditions others have been productive of ques-

tionable advantage. There is the knowledge too that many of these cases return, little improved, or having relapsed, showing the difficulties to be contended with, and the uncertainty which sometimes attends surgical efforts; the risk, especially, was a matter to be carefully considered. Excepting plastic operations he had had no personal experience, yet considerable observation had convinced him that only bold surgical measures, with the attending risk, could afford a reasonable hope of satisfactorily dealing with some of these distressing cases.

Dr. ROUTH thought that enough stress had not been laid on the fact that many cases of prolapse of the vagina are due to hypertrophy of the vaginal mucous membrane, as was long ago pointed out by Sims. Sims wished to remove a piece of the wall of the bladder in a case of cystocele; so drawing out the mucous membrane by a forceps, and intending to remove part of the bladder also, and then re-unite it by sutures as after a severe case of cystitis in which the bladder is opened; but to his surprise and gratification he found he had only cut away the vaginal mucous membrane, not having reached the bladder itself because of the thickness of the vaginal mucous membrane; and thus contented himself with doing a colporrhaphy. He (Dr. Routh) was himself operating once on a woman, removing a conical piece of the cervix, and the hypertrophied mucous membrane all round, when up went the uterus, and was with difficulty brought down again. The uterus clearly had been kept prolapsed by the weight of the hypertrophied vaginal mucous membrane. Profiting from this experience he (Dr. Routh) in operating in another case of a large rectocele, putting one finger in the rectum, as a guide, caught hold of a mass of mucous membrane on the recto-vaginal wall; and, passing long pins through it, he drew it up with ligatures, leaving the constricted mass to separate and to contract the vagina. A similar operation might be done for cystocele by first dilating the urethra, and then, as in the former case, using the finger in the bladder as a guide, transfixing only with pins the vaginal mucous membrane,

which will, after ligature, separate, and leave the cystocele cured. It was, in fact, a very easy matter to peel off the mucous membrane from the bladder or from the rectum. In cases where a prolapse of the uterus is due both to vaginal prolapse and to looseness of the ligaments, a cure may generally be effected by dealing as directed with the vaginal prolapse.

Mr. SPANTON said he had listened with much pleasure to Dr. Napier's very practical paper. There was one broad line of distinction to be observed in the etiology of uterine prolapse, viz., while many depend on the weight of the uterus, others are due to laxity of the vaginal walls. Given a heavy uterus with weak ligaments, the intra-peritoneal operation of ventrofixation might be the best; but when the vaginal walls were at fault, they ought to be dealt with first. He had been much struck when staying at Berlin three years ago, with seeing Martin, in a case of cystocele and rectocele, do a triple operation at one sitting; he first removed a conical piece from the cervix; then removed two triangular pieces of mucous membrane from the anterior vaginal wall, closing up the gaps with continuous sutures; and he finished up with a denudation of the posterior vaginal wall and a perinæorrhaphy. He had adopted this procedure several times since, with most satisfactory results. He thought it was much more scientific to treat the whole thing as one lesion, instead of dealing with it piece-meal. He looked on Le Fort's operation with great suspicion; he did not see how parturition could occur unless the septum were divided; and, apart from pregnancy, the septum was very apt to stretch and defeat its object. Some time ago he had a patient with a very large rectocele, which, when prolapsed, formed more than a handful of mucous membrane outside the vulva. The woman had heart disease, which contra-indicated an anæsthetic; so, passing his finger into the rectum, much as Dr. Routh did, he trans-fixed the mass with long pins, and applied ligatures, not tightly enough, however, to strangle the mass; then, reducing this, it formed a large boss inside the vagina, which became

quite solid, forming a kind of natural pessary. With regard to the safety of the intra-peritoneal operation, he thought that one fatal case in fourteen condemned the procedure absolutely; for he had done a large number of cases, operating *per vaginam*, without a single fatality. If, as Dr. Napier expressed it, it was a "surgical crime" to remove a healthy prolapsed ovary, he feared he had been guilty of several crimes. But, as a matter of fact, he thought it was very rare to have a healthy prolapsed ovary, because if the ovary were healthy it would not prolapse—or, at least, would produce no symptoms. But even if a healthy ovary were removed, he thought the mortality would be less than would result from ventrofixation of the uterus.

Dr. SCHACHT had had the opportunity of seeing all Dr. Napier's cases, and he thought that Mr. Spanton had somewhat misunderstood Dr. Napier's contention, which was not that ventrofixation was less risky than any other method in which the peritoneum was opened, but that there was no more danger in this operation *per se*, than in removing an ovary or a simple cyst. The difficulties and dangers of the operation were such as would arise in dealing with an ovary or a uterus bound down by adhesions. In the fixing of the uterus there was no special difficulty. The main question to be considered was rather "what cases are suitable for the operation?" than "what are its dangers?" When a uterus was acutely retroflexed and prolapsed, and pessaries, etc., had been tried in vain, and the patient was leading an invalid life, then, if the uterus was mobile, it was a justifiable operation, without undue risk. The necessity for any special denudation of the uterine peritoneum seemed to be overrated; the cases operated on so far, (which covered a period of one or two years), seemed to have remained fixed up to the present, and in none of the series was the uterine peritoneum removed. His conclusion, in reviewing all the cases, was that the chief thing was to exercise due care in selecting suitable cases; and that providing that the uterus was mobile, there was a great future for the operation.

Dr. TRAVERS said that as the fatal case referred to was his own, he would give a few more details about it. It was a case where the uterus was small, and much pain resulted from the prolapse, causing the patient to be a confirmed invalid. The dangers of the operation were fully explained both to her and to her husband, and she chose to run the risk. She did very well for a time after the operation, but pyæmic symptoms developed and she died. The *post-mortem* revealed no mischief within the abdominal cavity, and the uterus was found well fixed to the abdominal wall.

Dr. LEITH NAPIER, in reply, thanking the Society for the sympathetic reception of his paper, said that he was agreeably surprised that he had escaped with so little adverse criticism; this was not generally the fate of those who were in the position of pioneers, and he thought the fact was a significant indication of the more open-minded attitude of gynæcologists at the present day. He thanked Dr. Phillips for coming, as an early operator, and giving an account of his case, which had had much influence in causing him (Dr. Napier) to take up this question. But as Dr. Phillips had appeared to misunderstand him in a measure, he wished to say that he did not in the least approve of Säger's or of any other method of vagino-fixation, as shown by a reference to the paper (from which Dr. Napier here quoted a passage). Several speakers had said they would like to hear the results of these operations; he would refer them to Badouin's work on hysteropexy, which contained an exhaustive analysis of nearly 300 cases; of this number only one or two were recorded as fatal. In his own series they had selected the cases, and only operated when all other methods had failed. Plastic operations were, of course, well established by now; Stoltz's was quite a recognised operation. Cystocele and rectocele often preceded or co-existed with prolapse; and it was necessary to ascertain in any given case whether the uterus pushed down the vagina, or the vagina pulled down the uterus. He had done the combined operations in several cases, as in one instance where he performed a biconical amputation of the

cervix, and an anterior and posterior colporrhaphy ; it was not always possible to fix up the uterus by simply narrowing the vagina. Similarly, it was not always possible to cure a cystocele and rectocele by fixing the uterus ; it might be necessary to do both operations. In other cases, however, the uterus was alone to blame for a vaginal prolapse. With reference to the safety of ventrofixation, he thought it was no real criterion that there was one death, as there might be deaths from all kinds of simple operations. Cases always occurred from time to time which affected the statistics, where the operation itself was not the cause of a fatal result, and he thought that this operation, even with its risks, was better than having a number of cases going from one physician to another, wholly unrelieved, in spite of pessaries and other procedures of minor gynaecology, and constituting a constant reproach to the gynaecologist.

The Society then adjourned.

*ORIGINAL COMMUNICATION.**Proposed Registration and Inspection of Still-born Children.*

By R. R. RENTOUL, M.D.

IT is full time the present very unsatisfactory state of affairs which permits the bodies of children, supposed to be still-born, to be interred—and without even a Medical Certificate of the cause of still-birth—were put a stop to. In Denmark, Holland, Switzerland, Sweden, Norway, Greece, Italy, Spain, France, Belgium, Germany, Austria, Hungary, Western Australia, Provinces of Ontario and Prince Edward Island, and in several States and Chief Cities of America, registration is provided for. Why should England and Russia be among the exceptions? The English law enacts that only those children “born alive” shall be registered, and the “Regulations,” issued by the Registrar General to Registrars, enforce this. Our Births’ and Deaths’ Registration Acts have been undergoing a steady process of development. Before 1836, Registration of Births and Deaths was carried out by the clergy. Then, in 1837, Civil Registration was introduced. But this made Registration voluntary, and did not work well. Consequently the system was made compulsory in 1874. It is strange that none of these enactments make registration of still-born children compulsory. I take it that the Scottish Act of 1854 was drafted with this intention, because Sections 26 and 27 refer to “every birth,” “any birth,” and “any child born.” Surely these terms include still-born children. Even Seton, in his “Practical Analysis” of the Scottish Acts, does not say that they exclude such being registered. Section 28 of the same Act

gives the Registrar power to make parents bring the child to him, in cases of doubt, so that he may verify the birth, and sex—a most important provision.

The question has been asked—How many still-born children are interred in England each year? In 1890, I wrote to the Superintendents of about 100 Burial Board Cemeteries, and was surprised to find that at 71 such, no fewer than 6,321 had been interred. This statement having appeared in the Medical Journals, Dr. Cameron, M.P., called attention in the House to it. He then moved for a Parliamentary Return, showing the number of still-births interred. This Return was issued in July, 1891, and for it we must thank Dr. Cameron and Mr. C. T. Ritchie, then President of the Local Government Board. The Return is incomplete, as it does not refer to Scotland nor Ireland; nor does it take in the Parish and other Cemeteries—a number which might be put down at 8,000 at least. This Return shows that during 1890, no less than 17,335 children—supposed to be still-born—were interred at 1,133 Burial Board Cemeteries; and of this number 4,569 were interred without any Medical Certificate of the cause of still-birth. A painful feature in this Return is the large number interred in some of the large towns. It would have been an instructive point if the age, sex, legitimacy, or illegitimacy, of these children could have been stated; but there is no way—owing to the present slovenly state of affairs—of finding this out. It is well known that illegitimacy is a chief cause of still-birth. In the *British and Foreign Medical Review*, No. 7, it is stated that the proportion of still-births among legitimate births is 1 in 18 to 1 in 20—making the calculations from about 8,000,000 of births; while among the illegitimate and immature it is 1 in 8 to 1 in 10. Bertillon—Chief of Statistics of Paris—states that the chance of an *illegitimate* child being still-born, when compared with the legitimate, is as 193 to 100. In “Denmark, its Medical Organisation,” it is stated that of 100 legitimate births 2.6 per cent. are still-born; and of the illegitimate, 4.1. Generally, in first labours, 1 in 11 are still-

born ; and in other labours 1 in 32. More male than female infants are still-born, in the proportion of 56 to 44. I mention these facts because a Medical Certificate of still-birth should give data regarding the sex, age, and legitimacy of still-births, as well as the age, name, and nationality of the parents.

As regards the number of still-born children registered in other countries, I have to thank the various Consuls resident abroad for some valuable facts. Since then, the Parliamentary Return, No. 279, July 21, 1893—relating to "Still-births in England and other Countries," has been issued. This Return was moved for by Viscount Grimston, M.P., and I have to thank Dr. Lovell Drage for his help in aiding me to obtain it. In Denmark, during the year 1890, 1,933 still-births were registered ; in Sweden, 3,577 ; in Switzerland, 3,072 ; in Norway, 1,657 ; in Italy, 42,117 ; in Spain, 7,830 ; in France, 40,535 ; in Prussia, 42,084 ; in Duchy of Hesse, 1,159 ; in Saxony, 5,147 ; in Austria, 26,147 ; and in South Carolina, 39 white, and 169 coloured infants. It must be noted that in France, Italy, and Austria, all those children who, although live-born, have not been registered as births previous to their death, are classified as still-births. It is a strange system of work, but I suppose it is framed so as to include all premature and immature infants who may live for less than 24 to 48 hours. It is, however, a bad system, and I hope it will not be followed by our Legislators.

Is the criminally causing of children to be still-born frequent ?

Coroner Braxton Hicks says many children who are termed still-born are not really so, but have been born alive and died soon after, sometimes from natural causes, but also from suffocation and other illegal means. In fact it is to be feared that many children *termed* still-born are disposed of in other ways. Tidy, in his "Legal Medicine," says, so notorious is it that a large number of these cases could be averted, that some legislation is urgently needed. Stevenson, in his "Medical Jurisprudence," says, "There is reason to

believe that the non-registration of births of children born dead, leads to many being disposed of as still-born, which, in reality, came living into the world, but have died from neglect, exposure, or violence." In the Return already referred to, the then Secretary of State makes the following pointed remark:—"The Secretary of State has reason to believe that in some places the practice prevails of entering in the Cemetery Book, as still-born, children who have survived their birth by only a few hours, and over whose body no religious service has been performed." This is very likely, because how can some Parish Sexton—who can probably not even read—tell whether the child brought for burial has been either still-born, or murdered? It has been stated, that a still-born child can be interred for one and sixpence, while a regular funeral will cost £2 to £3. If there were no private undertakers in this country, and if we had the system of burial by the Municipal authorities—as exists in Germany and France—and where a child can be buried for about threepence, this objection would be met. (Those interested in this system of Burial should refer to the Blue Book, No. C., 842, 1873—"Third Report of the Commissioners on Friendly Societies," and the evidence given by Mr. J. A. Crowe.) The above quotations show there is an urgent demand for legislation requiring registration of still-births.

I have before stated that one of the chief causes of criminal still-birth is illegitimacy. The following figures show the number of illegitimate births registered—exclusive of still-births.

Country.	Population.	Year.	Total Births.	Illegitimate Births.
England ...	29,015,413	1889	885,944	40,627.
Scotland ...	4,033,180	1891	125,965	9,537.
Ireland ...	4,688,426	1890	105,254	2,827.

In Ireland, there are about 26.8 illegitimate births to every 1,000 births registered ; in England, 46 per 1,000 ; and in Scotland, 75 per 1000. It is said that a large proportion of the illegitimate births which occur in England are those

whose parents belong to Wales, Scotland and Ireland. This is a strong reason why the nationality of parents should be stated in the Birth Certificate, so that all debate may be settled upon this point. A perusal of the 40th Annual Report of the English Registrar-General will show the vast number of illegitimate children born in workhouses.

It is thought by some that the state of our law relating to capital punishment is an incentive to carelessness towards infant life. In this country the plea of pregnancy can be put up as a bar to execution, but only if the mother has "quickened." Consequently as "quickening" generally occurs about the fourth or fifth month—if it occurs at all—people are led to suppose that "life" begins only then. Such a supposition is false. Our law should, in this respect, be made the same as in France, where the plea of *pregnancy*—not of quickening—is a sufficient bar to execution. What right have we to murder a child in the womb, when its mother is executed? None whatever. Even the infant in the womb should share the protection of the law. Again, the fiendish state exists, in our laws, that if a child while being born—*i.e.*, before being completely born—receives an injury given with criminal intent, and which kills the child before full birth—such an action can not be brought under the charge of infanticide or murder. This is also another example where the child in the womb does not obtain legal protection. It would be much better if the suggestion which the Harveian Society offered to the Select Committee which took evidence, in 1871, on the "Protection of Infant Life," were adopted; and that for the purpose of conviction, *complete* birth be not required, but proof only that the child was living during birth, and that it had died from violence inflicted during or after birth. Further, I do not think that the 24 and 25 Vict., c. 100, 1861, relating to the "Concealment of Birth," or the Scottish Act of 49 Geo. III., c. 14, 1809, relating to the "Concealment of Pregnancy," lessens the value of the request for Registration of still-births.

What is a still-born child? In *legal* language, a live-born

child is one which has been completely born outside of its mother, and which, after complete birth, shows some sign of life. Legally, a child in its mother's womb, not being *rerum natura*, is not considered to be a person who can be killed within the description of murder. Legally, a "still-born" child is therefore one which, after "complete birth," does not show some sign of life. The terms "complete birth," and "sign of life" must be clearly defined. "Complete birth" means the child being entirely outside its mother; while "sign of life" means any vital movement of the child after complete birth. Legally, if the child showed a sign of life *before* or *during* complete birth, it would not prove, in the eye of the law, that the child had been live-born. This being so, many qualified to express an opinion will say—the law is wrong. Nevertheless, it is so. It will follow, therefore, that only those present at the birth can say if the child was still-born. It is a question of fact, or of observation: not of science. An *eye-witness* is the only person who can speak authoritatively.

What is the *earliest* age at which still-born children should be registered? The *latest* age is easily fixed; all full-grown still-born children should be registered. As it is generally known that a child which has lived for four or four and a half months in the womb, may, when completely born, show a "sign of life," I would propose that all infants still-born, and who have attained the fourth month of intra-uterine life, should be registered. Such a definition would—for purposes of registration—suit, although I do not see why even younger infants should not be registered. A reference to some foreign laws may help us. In Italy, infants who die before being registered, are entered as still-births. In Spain, those which have reached the sixth month of intra-uterine life and one day. In France, and in Paris, by Municipal Decree, a four months' conception and upwards must be registered. But the custom varies in different communes, some registering a two months' conception. In Germany, there is no statutory law, but seven months' conceptions and upwards must be

registered, those failing to do so being fined £7 10s. In Austria, a six month still-birth must be registered, and here it is to be carefully noted, that every midwife who is present at a birth must report every case to the Inspector of Dead Bodies, no matter what period of development the child has reached—a most important provision. In Denmark, infants which have attained the 28th week and upwards must be registered. In Switzerland, conceptions of six months must be registered when still-born. In Sweden, conceptions of four months and upwards; and in Norway, four months and upwards. From these illustrations I think we should fix compulsory registration of still-births to take place from the fourth month and upwards.

Should still-births be registered as births; or as deaths; or as births and deaths; or as still-births? In foreign countries the law varies. In Denmark, they are registered in a special column in the register of deaths, as "still-births," the fact being noted particularly whether the child was "born dead," or died "during birth." In Switzerland, they are registered both as births and as deaths. In Sweden, as births. In Norway, as still-births. In Greece, as deaths. In Italy and in France and in Austria, any child which dies before the birth is registered. It is to be noted that in Italy births must be registered within 24 hours; in France within three days; and in Austria within seven days. In Belgium, they are registered as deaths. I would suggest that they be registered as still-births, and in a special column in the register of deaths.

I shall now pass on to the second proposal in my paper, viz., the inspection of all still-born children before burial by a medical practitioner. I may first remark that in other countries no dead body can be interred until *the fact* of death, and *the cause* of death, and *the identity* of the deceased have been verified by an official medical officer. In England, any body can be buried, even although there has been no medical certificate of the cause of death, or even although the death has not been registered. A truly delightful paradise for

criminals ! In order to explain what this proposed inspection is, I shall give an illustration of how bodies are inspected abroad. Still-births *must* be registered. A still-birth having occurred, it is the duty of the relatives to notify this to the registration authorities. These give the relatives a form to fill in. At the same time the authorities inform the inspector of dead bodies that a still-birth has taken place at a certain house. The inspector calls, verifies the fact, and the cause of still-birth, and, if satisfied, issues his permit for burial. If he has any suspicion of foul play, he refuses the permit, and instructs the police. No body can be interred until a permit from the inspector, or from the police, has been issued. Now I would propose that a similar plan should be introduced into this country, only, I would suggest that each medical practitioner, who has been present at the birth, should be called upon to act as verifier of the fact and cause of still-birth. In other words, a *public* verifier should be required only in those births at which no practitioner had been present. I do not think the country would object to the small cost of such a system, considering how far it would go to protect infant life. Supposing there are 60,000 still-born children registered each year, and that a fee of 2s. 6d. be paid for each medical certificate of verification of the fact, and the cause of still-birth, and the identity ; this would cost the public only £7,500 a year—not a thirty-second of a farthing per head of the population per annum ! In Austria, the inspector of dead bodies is paid a fee of from two to three gulden per body, or about 3s. to 4s. 6d. ; while in some communes he is given a yearly salary. This salary is usually paid out of the local rates. In Rome, each municipal medical inspector is paid 1800 lire, or about £72 a year. In Paris, the medical verifying doctor is paid three francs per body inspected. In that city there are about 100 medical verifiers, and about 270,000 francs, or £10,800, are paid in one year out of the municipal rates, for verifying 120,000 deaths and 150,000 births.

I think it is the duty of medical practitioners to bring

this question of registration and inspection to the front. The time is surely ripe for a public protest against the gross indifference of women of all classes, as shown to the infant in the womb. The present state of affairs is a public scandal. A class of political economists may say that the human animal is a "glut" in the market, and so, not having the money value of a pig, calf, or sheep, it may be placed on that little list, from which, they hope, it never may be missed. On the other hand our words and actions must be made to give a strong colour to public thought—to instil the knowledge that from the moment of conception there is life; that this life has a right to claim our protection; and that it is one of our first duties to bring about registration and inspection of still-born children. And if we can induce our law makers to extend further official recognition to the child in the womb, then we, as medical practitioners, possessing the power of harmonising law with medical science, will be able to say that we have not altogether failed in our duty in dealing with this important question. With this aim in view, I give evidence before the Select Committee, now taking evidence on the registration of births and deaths. The report of this committee will, I trust, be far-reaching. And, it is to be hoped, that as Drs. Sir W. Foster, Sir C. Cameron, and Farquharson are upon the Committee, the Legislature will soon be called upon to consider the entire re-modelling of our Births' and Deaths' Acts—Acts which we all know are shams, and whose working Coroner Braxton Hicks has not failed to describe as a "public farce."

The following important recommendations have been suggested by Robert Reid Rentoul, M.D., to the Select Committee of the House of Commons upon the Registration of Deaths:—

- 1.—That the different Acts relating to the Registration of Deaths in England, Scotland, and Ireland, be consolidated, and that such Consolidated Act apply to the United Kingdom.
- 2.—That the Annual Reports of the Registrars General be drawn up on one uniform system, and that the three Reports be published in one volume.

- 3.—That the three books of "Regulations" issued now by the Registrars General, as well as those issued to the Superintendent Registrars, be consolidated, and made to apply to the United Kingdom.
- 4.—That the number of Inspectors be either greatly increased ; or that the office of Inspector be abolished.
- 5.—That the Superintendent Registrars or (if retained) the Inspectors appointed to supervise the Registration of Deaths, be also empowered to supervise the Superintendents of Cemeteries, in so far as relates to the Registration of the Burial of Bodies.
- 6.—That the Registrars General be instructed to issue an order to the effect that Chemists, and all irregular practitioners of medicine, shall not hold the Office of Registrar of Deaths, or of Superintendent Registrars.
- 7.—That the present Forms of Medical Certificate of the Cause of Death, as now used in England, Scotland, and Ireland, be withdrawn from further use.
- 8.—That no Registrar of Deaths accept the Certificate of the Cause of Death unless it is signed by a Registered Medical Practitioner.
- 9.—That each Registrar of Deaths in the United Kingdom be furnished yearly with an Official Copy of the Medical Register, and at the public expense.
- 10.—That in all cases the Medical Certificate of the Fact of Death and of the Cause of Death, and identity of the deceased, be transmitted forthwith through the post, by the Registered Medical Practitioner, to the Registrar of Deaths, and that this Certificate shall not be transmitted by any other person.
- 11.—That each Registered Practitioner must conform with the printed "Suggestions" issued by the Registrar General.
- 12.—That Registered Practitioners, when certifying the disease which was the cause of death, use only the names of diseases, etc., as given in the book "Nomenclature of Diseases," issued by the R. C. Physicians, London.
- 13.—That when a death takes place, this must be notified to the Registrar of Deaths within 24 hours after the death—Sundays excepted—and by the persons mentioned in the Registration Acts.
- 14.—That when a death is notified to the Registrar of Deaths, the latter shall give to the person notifying, a blank form of the "Medical certificate of the Fact and the Cause of death and of the Identity of the Deceased," which certificate shall be handed by the person notifying the death to the Registered Medical Practitioner appointed to fill in this certificate.
- 15.—That every dead body shall be inspected by a Registered Medical Practitioner ; that this inspection shall be undertaken by the Registered Practitioner who treated the deceased in his last illness

and until the day of his death. That in case *no* Registered Practitioner so treated the deceased, the body shall be inspected by a Registered Practitioner—preferably the District Poorlaw Medical Officer—who shall be appointed by the Board of Guardians.

- 16.—That the Certificate issued to Registered Practitioners be a “Certificate of the verification of the Fact of death, and of the Cause of death, and of the Identity of the deceased.”
- 17.—That the following be the forms of Certificate of the Fact, and of the Cause of death, and the Identity of the deceased :—

Form A.—Medical Certificate of the Fact, and of the Cause of death, and of the Identity of the deceased, when deceased has been treated during his last illness and until the day of his death by a Registered Practitioner.

“ This is to certify that I, (John Jones), Registered Medical Practitioner, residing at (2, Bell Lane), have, this (1st) day of (June), 1893, seen the dead body of (Mary Jones,) aged (50,) lying at (25, Bell Road,) whom I treated in (her) last illness and until the day of her death ; that she died at (25, Bell Road), on the (1st) day of (June), 1893 ; that the body is that of deceased, (Mary Jones), and that the cause of her death, and the duration of her illness are as undermentioned :—

Primary disease causing death.

Duration of illness, in years—months—days, or hours.

Occupation of deceased.

Condition (married, or widow, or spinster, or bachelor).

Signature of Registered Practitioner.”

Form B.—Medical Certificate of the Fact, and of the Cause of death, and of the Identity of deceased when deceased has *not* been treated during his last illness and until the day of his death by a Registered Practitioner.

“ This is to certify that I, (John Jones), Registered Medical Practitioner, residing at (2, Bell Lane), having been authorised by the Registrar of Deaths to inspect the body of (Mary Jones), aged (50), lying at (25, Bell Road), state that I have seen the body and verified the fact of the death of the person mentioned in this certificate ; that it is stated by the undersigned persons that she died on the (1st) day of (June), 1893, and that the cause of her death is as undermentioned :—

Primary disease causing death.

Occupation of deceased.

Condition (married, or widow, or spinster, or bachelor).

Signature of Registered Practitioner.”

Certificate of Identity of the Deceased.

To be signed by two persons of full age, who, if possible, are related to the deceased, and who must identify the body.

"I, (Hugh Jones), of (25, Bell Lane), full age ; and I (Thomas Jones), of (25, Bell Road), full age, this (1st) day of (June), 1893, certify that we were personally acquainted with (Mary Jones), and that the body which we have seen lying at (25, Bell Lane), is the body of the person named in this certificate ; that her illness lasted from the (1st) day of (March), 1893, to the (1st) day of (June), 1893 ; and that she was not treated by a Registered Medical Practitioner during her last illness and until the day of her death.

Signature of persons identifying deceased, and their Occupations."

N.B.—If the Registered Practitioner having verified *the fact* of death, and the identity of deceased, cannot state *the cause* of death ; or if he suspects violence, or death from unnatural causes, he must write to this effect upon this certificate, when the Registrar of Deaths must report to the coroner.

REMARKS.

No alteration in the names, dates, etc., to be made in these Certificates, unless the same be made before a Magistrate.

18.—That the following Form be issued by the Registrar of Deaths when instructing a Registered Practitioner to inspect a body in cases where deceased has not been treated during his last illness and until the day of his death by a Registered Practitioner :—

"Order from the Registrar of Deaths to the Registered Medical Practitioner appointed to Inspect a body, so as to verify the Fact, and the Cause of Death, and of the Identity of deceased, when deceased has not been treated during his last illness and to the day of his death, by a Registered Practitioner—

"I (Thomas Jones), Registrar of Deaths, at (25, Oxford Street), having been informed that the death of (Mary Jones), aged (50) years, has taken place at (25, Bell Road), on the (1st) day of (June), 1893, hereby authorise (John Jones), Registered Medical Practitioner, of (2, Bell Lane), to inspect the body of (Mary Jones), at the above address, and to forthwith furnish me with the necessary Certificate."

This blank Certificate to be given by the Registrar of Deaths to the person notifying the death to him, and to be handed to the verifying Registered Practitioner by the person who notified the death.

19.—That the Registrar General supply these Forms free : that the Forms be scheduled in the Act : that the forms A. and B. be stamped with a half-penny stamp in the same way as that used in the

Medical Certificate of Vaccination : that no Registrar of Deaths accept any Forms of Certificates other than those scheduled : and that a list of the names of diseases which must be used when filling in the cause of death, be printed on the reverse side of Certificates A. and B.

- 20.—That no Registrar of Deaths shall issue an order for burial until the body has been inspected, and until he has received the "Certificate of the Fact, and of the Cause of death, and the Identity of the deceased ;" and that no body shall be interred until the Registrar, or the Coroner, issue his order for burial.
- 21.—That each registered Practitioner, and registered Practitioners only, be paid a fee of 2/6 for each Certificate of the Fact, and the Cause of death, and Identity of deceased, when the death has occurred in his private practice ; and that he be paid a fee of 1/- when the death has occurred in a public hospital, asylum, or institution of which he is Medical Officer ; that a fee of 7/6 be paid to the registered Practitioner when he inspects and reports upon a body of a person who has not been treated during his last illness and until the day of his death, by a registered Practitioner. That such fees be paid quarterly by the Registrar of Deaths, out of the public funds.
- 22.—That in all cases of deaths reported to the Coroner, either by the Registrar of Deaths, or by the Police, the Coroner shall, instead of employing either the Police or his Beadle to make enquires employ a registered Practitioner to investigate and report to him upon such cases ; that the Coroner be authorised to pay a fee of 10/6 for each investigation, and that he appoint two Practitioners, from year to year, in each Parish or Union.
- 23.—That the birth of every *illegitimate* child shall be registered within 24 hours after the birth, Sundays excepted, in the district in which the birth occurred, and by the persons mentioned in the Registration Acts whose duty it is to register a birth, that the Registrar shall forthwith forward notice of the birth to the Registrar residing in the district in which the mother was born, provided she was born in the United Kingdom, and the latter shall copy it into his Register.
- 24.—That when a registered Medical Practitioner, or any other person, has been present at the birth of an *illegitimate* child, he, or they, shall forthwith send a written notice to this effect to the Local Registrar, and the fee of one shilling shall be paid by the Registrar to such registered Practitioner for each certificate.
- 25.—That when a Registrar of Deaths is informed of a death, following any of the infectious diseases mentioned in the Notification of Infectious Diseases Act, he shall forthwith notify such occurrence to the Local Sanitary Authority ; or, that the Registration Office be made a part of each Local Sanitary Authority.

- 26.—That it be illegal for a Registered Practitioner to employ any person not a registered Practitioner as his assistant, partner, or agent ; and that it be illegal for any person not a Registered Practitioner to act as the assistant, partner, or agent of a registered Practitioner.
- 27.—That the Registrar General be instructed to furnish forthwith the name and address of Registered Practitioners who have been found guilty, in any court, of any offence against the Registration of Deaths Acts, to the General Medical Council.
- 28.—That any person offending against any of the above Regulations, be fined not less than £10 with costs, and be imprisoned for not more than two years.
- 29.—That the General Medical Council be requested to recommend to the Examining Bodies granting Registerable Diplomas, that the requirements relating to the education and examination of Medical Students in the Registration of Deaths' Acts, and the subjects bearing upon these, be markedly improved.

REGISTRATION OF STILL-BORN CHILDREN.

SUGGESTIONS.

That all Still-born Children be registered by the Registrars of Deaths in a special book, and as a death only ; that it be notified to the Registrar within 24 hours after birth—Sundays excepted—by the persons required by the Registration Acts to register a death, and that the Fact and the Cause of death, and of the Identity of the Still-born Child be verified by a Registered Medical Practitioner.

That for the purposes of Registration under the Act, a "Still-born Child" is a child which has completed the fourth month of intrauterine life or upwards, and which has not shown any sign of life after complete birth.

That the term "complete birth" means the body of the child to be entirely outside of the mother, and does not include either the division of the umbilical cord, or the delivery of the placenta.

That the term "sign of life" means that the child after "complete birth" has not been seen, or heard, to perform any physiological sign of life, such as breathing, or crying, or moving any part of its body, or the heart, or cord, seen, or heard, or felt to beat.

That the "suggestions" put forward relating to the Registration of Deaths, and numbered 7, 8, 10, 11, 12, 13, 14, 15, 16, 18, 19, 20, 21, 22, 23, 24, 28 and 29, be made to govern the Registration of Still-born Children.

That the following be the Forms of "Medical Certificate of the Fact of Death and the Cause of Death, and of the Identity of the Still-born Child :"—

Form A.—When a Registered Medical Practitioner *was present* at the birth—

"This is to certify that I (John Jones), Registered Medical Practitioner, residing at (2, Bell Lane), have this (1st) day of (June), 1893, seen the body of a child at (25, Bell Road); that I attended (Mary Jones) at (25, Bell Road), on the (1st) day of (June), 1893, in her (6th) confinement, when she was delivered by me of this (legitimate, or illegitimate) still-born (male or female) child; that this child had attained the (8th) month of intrauterine life when born: that her confinement was (natural, or aided by forceps, turning, craniotomy, etc.); that the child died (in the womb, or during birth); that the mother has been previously delivered of (6) still-born children, and (4) abortions, and that the cause of this child having been still-born was——

Signature of the Registered Practitioner."

Form B.—When a Registered Medical Practitioner *was not* present at the birth.

"This is to certify that I (John Jones), Registered Medical Practitioner, residing at (2, Bell Lane), having been authorised by the Registrar of Deaths to inspect the body of a child, said to be still-born, at (25, Bell Road), state that I have seen this child, and verified the fact of still-birth; that (Mary Jones), its mother, was confined of a (legitimate or illegitimate) still-born (male or female) child, which has attained the (8th) month of intrauterine life; that it is stated by the under-signed persons that the child was (born dead, or died during birth); that the mother states she has been previously delivered of (4) still-born children and (2) abortions, and that the cause of the child having been still-born was——

Signature of Registered Practitioner."

Certificate of Identity of the Still-born Child.

To be filled in and signed by two persons of full age who were present at the birth, and who must certify that the body of the child inspected is the child of whom the person mentioned in this Certificate was confined—

"I (Jane Jones), of (25, Bell Road), full age, and I (Martha Jones), of (25, Bell Road), full age, certify that we were present at the confinement of (Mary Jones), of (25, Bell Road), on the (1st) day of (June), 1893; that no Registered Practitioner was present at the birth; that the labour began at the hour of (3) o'clock (a.m. or p.m.) on the (31st) day of (March), 1893, and terminated at the hour of (8) o'clock (a.m. or p.m.) on the (1st) day of (April), 1893; that the child now inspected is the child of

whom (Mary Jones) was confined ; and that the child did not, before, or during, or after birth show any sign of life.

Signatures of persons present at the birth, and their occupations."

N.B.—If the Registered Medical Practitioner, having verified the fact of still-birth, and of the Identity of the still-born child, cannot state the cause of this child having been still-born ; or if he suspects violence or death from unnatural causes, he must write to this effect upon this Certificate, when the Registrar of Deaths must report to the Coroner.

REMARKS.

No alterations in the names, dates, etc., to be made in these Certificates unless the same be made before a Magistrate.

*OBITUARY.***JAMES HOBSON AVELING, M.D.**

THE Society has suffered an irreparable loss by the death of one of its most eminent Fellows—Dr. James Aveling. Born in 1828, in Cambridgeshire, he graduated at Aberdeen in 1856, and soon after settled in general practice in the small village of Ecclesfield, some five miles from Sheffield. He soon succeeded in surrounding himself with numerous friends, and made a more than local reputation as a skilful obstetrician, perhaps, largely owing to his practice of administering chloroform to women at childbirth—the prejudice against the anæsthetic not having at that date been overcome by medical practitioners. Later he removed into Sheffield, and seeing the need of more special help for women than the general hospitals at that time afforded, he issued a private circular, advocating the establishment of a special hospital for gynecological cases. The project fell through, but later, in 1863, with the co-operation of the late Dr. Edward Jackson and Dr. Keeling, a more successful effort was made, and the result was a small hospital of twelve beds. With this institution—with which as founder his name must ever be associated—he remained connected during his residence in Sheffield. This small institution has since developed into the Jessop Hospital for Women, with forty beds, and at the time of his decease Dr. Aveling was its consulting medical officer.

Finding Sheffield too narrow a field for observation, he migrated to London in 1868. In conjunction with Dr. Chambers, he started a small hospital for women in the King's Road, Chelsea, with half-a-dozen beds; and from this sprang the Chelsea Hospital for Women, containing sixty beds

which is now a flourishing institution and doing good work. For several years Dr. Aveling was senior physician to the hospital, and only relinquished his duties a few years since, when illness compelled him to lessen his public work. He was made consulting physician—a post he held to the time of his death—and he devoted much time and consideration to establishing the hospital on a firm basis. It was only last year he took a prominent part in the opening of its Convalescent Home at St. Leonards-on-Sea.

Dr. Aveling was a cultured and highly educated man of great literary attainments. For many years he edited the *Obstetrical Journal*, and was the author of many pamphlets—"Memorials of Harvey," "The Influence of Posture on Women in Gynecic and Obstetric Practice," "On Inversion of the Uterus," "On Immediate Transfusion," and other kindred subjects. He was a firm believer in the advantages of electricity in pelvic disorders, and carried out his views in practice.

Dr. Aveling was also greatly interested in the question of midwives, and devoted much time and attention to furthering the improvement of this class, and advocating their recognition and regulation by the State. It will be remembered that a paper on this subject was read by him before the Society in November, 1890, which caused at the time considerable discussion, and met with the most strenuous opposition from a majority of the Fellows.

He was one of the founders of the British Gynæcological Society, and always took an active interest in its proceedings. He would have been President had his health permitted it. His interests were not limited to professional matters. He was well versed in antiquarian researches, and besides the works by which he is known to the profession, he wrote a history of Roche Abbey, which was thought highly of, at the time.

His remains were cremated at Woking, when a large number of friends, patients and colleagues, paid a last tribute of respect to his memory.

J. A. M. M.

CHARLES CLAY, L.R.C.S.EDIN., L.R.C.P.LOND.

The following obituary notice of this distinguished surgeon appeared in *The British Medical Journal*:—

The announcement of the death of Charles Clay, the "Father of Ovariectomy," will come as a surprise to the younger members of the profession, for to most of them his name has only been familiar as one of the pioneers of abdominal surgery, who, having made his mark fifty years back, was naturally assumed to have joined the great majority long ago:

Charles Clay was the second son of Mr. Joseph Clay, a corn miller, and was born at Bredbury, in Cheshire, on December 27, 1801. At an early age he became the pupil of Dr. Kinder Wood, the first lecturer on midwifery at the Marsden Street Medical School, Manchester. Here he attended the lectures of Jordan, the founder of the school, John Dalton, the great chemist, and others.

At the age of 20 he matriculated at Edinburgh, and became a Licentiate of the College of Surgeons there in 1823. In the same year he began general practice in Ashton-under-Lyne, and almost immediately married the eldest daughter of Mr. John Vaudrey, surgeon, of Bredbury. After fifteen years of general practice, Dr. Clay removed to Manchester in 1839, where he practised as a consultant. His first wife having died, he married in this year the daughter of Mr. Boreham, a brewer, of Haverhill, Suffolk.

In 1842 he took the L.R.C.P.London, but, still preferring surgery, remained a consultant in that department, and in September of that year (exactly fifty-one years ago) performed his first ovariectomy, in the presence of Drs. Radford and Black, Messrs. Southam, Vaudrey, and Nursan. The tumour removed weighed 36 lbs., and the operation occupied ten minutes, and was performed without chloroform. The patient made a complete and speedy recovery, and Clay immediately became famous as an operator, and his services

were eagerly sought in all parts of the kingdom. His cases were published in the eleventh and following volumes of the *Medical Times*.

For fifteen years Clay was almost the only operator in ovarian cases, and owing to overwork his health broke down. During his enforced rest, he collected all his cases, 395 in number, and read their history before the Obstetrical Society of London. The paper was warmly received, and amongst those who expressed satisfaction was Mr. (now Sir Thomas Spencer) Wells, who soon after went to Manchester to see Clay operate.

It would be out of place here to refer to the rivalry that afterwards sprang up between those great surgeons. Suffice it to say that as far as priority goes there can be no dispute, Clay's first operation being in 1842, while Wells's was in 1858. We must not omit to mention that Dr. Clay in 1845 extirpated a fibroid uterus by an abdominal incision, thus anticipating Professor Koeberlé by eighteen years.

Dr. Clay was a prolific writer. His first paper was on Ergot of Rye, and was published in the *Medico-Chirurgical Magazine* in 1824. He also wrote on Peritoneal Sections, Cæsarean Section, Ovariectomy, Uses of Ox Gall, Vomiting in Pregnancy. He published "British Record of Obstetric Medicine and Surgery," "A Handbook of Obstetric Surgery," "Hints for an Obstetric Cyclopædia." In 1866 he won the Jacksonian Prize of the College of Surgeons for an essay on Asphyxia.

Outside his profession he was a keen geologist and an authority on coins, publishing "Geological Sketches of Lancashire" and a "History of the Currency of the Isle of Man."

In late years he has lived quietly in Poulton-le-Fylde, near Blackpool, working regularly in his garden, and taking great pride in his flowers and fruit. During the last few years he has enjoyed excellent health, possessing to a marked degree all his faculties, and quite recently taking journeys to London and Edinburgh.

On Tuesday, September 19th, the day of his death, he

went into Blackpool to look at a new house he thought of taking, and spoke cheerily of having it on a long lease. He appeared particularly agile, but on his return home he had an attack of syncope, falling from his chair dead.

REVIEWS, &c.

IN the *Birmingham Medical Review* for July, Mr. Christopher Martin has a practical paper on the after treatment of cases of abdominal section. He devotes the major part of his remarks to the important question of drainage. The following opinions on this point will be endorsed by all experienced operators.

"I consider it necessary to drain the peritoneal cavity :—

"1. Where there is peritonitis or ascitic effusion.

"2. Where during the operation the peritoneum has been soiled with faecal matter, urine, pus, or offensive contents of tumours.

"3. Where the abdomen has been washed out.

"4. Where extensive adhesions have been broken down.

"5. Where, from any cause, free oozing of blood is taking place into the peritoneum.

"6. Where there is reason to believe the bowel or bladder has been injured.

"It is a wise precaution to insert a tube where, even though there be no hæmorrhage at the close of the operation, it is likely to occur afterwards. Thus, the surgeon may feel uneasy as to the security of the ligature on the pedicle; or he may have had to operate on a vascular organ, like the uterus, which is prone to bleed. In all doubtful cases my rule is to drain. I have never seen a case where, after inserting a tube, I have regretted doing so; and I have seen numerous cases which, had they not been drained, would certainly have died.

"*The Tube*.—The form and material of the tube deserve attention. It must be of stout tough glass, strong enough to resist the great pressure to which it is submitted during the

violent retching that so often follows the operation. It should be perfectly straight, and maintain the same diameter (nearly half an inch) from top to bottom. It should be opened at the lower end, and not rounded like a test tube. The sides should be perforated at frequent intervals, the holes being nearly a line across, and extending almost to the top of the tube. The upper end of the tube should be turned out into a circular lip or flange an inch in diameter. The tube should be of such a length that when the lower end reaches to the bottom of the pouch of Douglas the circular rim sits easily on the skin.

"1. It acts as a sentinel, indicating the onset of severe internal hæmorrhage in time for its prompt treatment. It is especially needed in cases where vascular adhesions have been dealt with, where the pedicle has not been ligatured satisfactorily, or where some very vascular organ, such as the uterus, has been operated on.

"2. It is a potent hæmostatic, checking free oozing by enabling the blood effused to be at once removed, and by admitting air to the raw surface and keeping it more or less dry. If necessary, astringent solutions may be injected down the tube in order to act directly on the source of bleeding.

"3. It prevents peritonitis by the removal of fluid—blood, pus, serum, or tumour contents—which, if allowed to remain, would probably undergo septic changes and excite a fatal peritonitis. Where there is a risk of fæcal extravasation, as when a hole has been torn in the rectum, it is simply invaluable.

"4. It is a curative agent in peritonitis with effusion, and in ascites due to tubercular disease or papilloma of the peritoneum."

There is an able and very interesting article by Dr. John Byrne in the *Brooklyn Medical Journal* for November, 1892, detailing his experiences of the removal of the cervix uteri when affected by cancer by the galvano-cautery in preference to the extirpation of the local disease by other methods.

He says, however, and we believe with both truth and force, that "the galvanic cautery is only applicable 'where the

disease is of the cauliflower variety and entirely limited to the intra-vaginal portion of the cervix.'"

He claims for this method of treating uterine cancer two most important advantages: "(1) absolute freedom from danger, immediate or remote, and (2) a longer respite from recurrence of the disease than has yet been shown by the most favourable and ingeniously constructed statistics of hysterectomy. *For example, in nearly four hundred cases not a single death due to the operation; in forty out of sixty-three cases of cancer of the portio vaginalis, twenty-three having strayed away, periods of exemption ranging from two to twenty-two years, being an average for each one of over nine years. Of eighty-one cases involving the entire cervix—thirty-one were lost sight of, ten relapsed within two years, five had no recurrence for two years, eleven for three years, six for four years, eight for five years, six for seven years, two for eleven years, one for thirteen years, and one for seventeen years. So of forty of this class whose histories could be followed up, there was an average period of exemption for each of nearly six years. And yet, these figures are not up to date by any means, because many of the patients of this class, five at least to my personal knowledge, and now residing in this city, are entitled to an additional credit of three to four years.*"

In the same number of the *Brooklyn Medical Journal* Dr. Byrne gives the following rules which in his large practice he has found it necessary to follow in performing high amputation and other operative measures for removal of cancerous growths from the uterus by the galvanic cautery.

"In removing a growth which merely involves the cervix, the diseased organ should be exposed to view and the vagina protected by a Sims' speculum, and an anterior and two lateral retractors, and it may be necessary to seize the edges of the excavation by one or more volsella. Before introducing the cautery electrode a wad of absorbent cotton is to be passed into the cavity, held for a moment, and immediately, on being withdrawn, the dome-shaped instrument, brought to a cherry-red heat, is to be rapidly and repeatedly passed over the

bottom of the cavity mainly. The latter is then to be again dried by wads of absorbent cotton held in dressing forceps, and cauterization resumed as in the first instance. This process is to be repeated over and over again, until the deeper parts of the cavity have become dry and charred, when the sides are to be treated in precisely the same manner, and *roasted* to the same crisp condition. The seat of operation will now present the appearance of a perfectly black and *dry* cavity. All ragged and over-lapping edges are next to be trimmed off by the cautery knife; a firmly rolled tampon of suitable size with thread attached, and saturated with the above styptic compound, is now to be placed in the cavity, and, finally, a supporting vaginal tampon is to be applied and the patient removed to bed. The *vaginal* tampon may be removed on the following day, but the other had better be allowed to remain for forty-eight hours or longer. The subsequent treatment will consist of vaginal douches twice daily of carbolized water.

"*High Amputation.*—In conditions admitting of high amputation, the following is the method usually resorted to: The uterus is to be exposed and the vaginal walls protected in the manner already described. The diverging volsellum, being passed well into the cervical canal, should now be expanded to a proper degree and locked, so as to afford complete control of the uterus during the entire operation.

"By alternate traction and upward pressure of the uterus, an accurate idea may now be obtained as to the proper point to begin the circular incision, so as to avoid injuring the bladder or opening into the *cul-de-sac* of Douglas. As to the latter, however, should it be found that the disease has involved the retro-uterine tissues, and that its excision or destruction by the cautery cannot be effected without opening into the peritoneal cavity, there need be no hesitation in doing so, as I have never known any harm to come from it whether done accidentally or by design. Should it be evident at the outset that the operation, in order to be thorough, must include a portion of the *cul-de-sac*, it will be better to

make the line of incision anterior to this, until the cervix has been removed, and leave the excision of the retro-uterine parts *by the cautery knife* to be the final proceeding. Under these circumstances all that will be needed will be an anti-septic tampon properly applied.

"In proceeding to make the circular incision, the cautery knife slightly curved, *and cold*, should be applied close up to the vaginal junction, and from the moment that the current is turned on, should be kept in contact with the parts being incised. Before removing the electrode for any purpose, such as change of position, or altering the curve of the knife, the current should first be stopped and the instrument again placed in position while *cool* before resuming incision. In other words, if *the knife, though heated only to a dull red, be applied to parts at all vascular, hæmorrhage more or less will certainly follow; whereas, the cool platinum blade being already in contact with moisture, as the current is being transformed into heat, vessels are shrunk or closed even before they are severed.*

"This is a very important point, and should never be lost sight of in all cautery operations.

"The circular incision having being made to the depth, say, of a quarter of an inch, it will now be observed that by increased traction the uterus may be drawn much farther downward, and by directing the knife upward and inward the amputation may be carried to any desired extent. In cases calling for amputation above the os internum, it will be better to excise and remove the cervix first, then, by dilating the upper canal sufficient to admit the diverging volsellum, once more proceed as in the first instance, taking care, however, to keep within bounds. It will be found that the cupped stump can now be drawn down and made to project as a more or less convex body.

"In all cases the dome-shaped electrode should be passed over the entire cavity repeatedly so as to render the cauterization still more complete.

"It is important to add that, in carrying the knife toward

the *sides* of the cervix, circular and other arterial branches are apt to be encountered, and hence, in this locality particularly, a high degree of heat in the platinum blade is to be carefully avoided. As an additional security against hæmorrhage, the convexity of the knife should be pressed against the external surface of each particular section cut, so as to close vessels more effectually.

"It is well to state that the metallic parts of the electrode for the distance of about two inches should be covered with a strip of thin flannel, so that the vagina may be protected from injury through the reflected heat."

SYMPHYSIOTOMY.

The operation of symphysiotomy is attracting great attention at present in America, and the *American Journal of the Medical Sciences* gives the following valuable *résumé* of the recent literature on the subject.

"SWIECICKI (Posen) reports (*Centralblatt f. Gynakologie*, 1893, No. 23) a case aged 21 years, I-para, with a flat and generally contracted pelvis; conj. vera, $7\frac{1}{4}$ cm. Symphysiotomy; child delivered with forceps; recovery after four weeks.

"NEUGEBAUER, in 196 new operations for symphysiotomy, from 1887 to 1893, found that there were twenty-three deaths. Of these, four were from causes not connected with the operation, and in nineteen cases the death was in relation with operation.

"SCHAUTA believed that more symphysiotomies were prepared for than were done, the birth ending by the application of the forceps. The wounding of the soft parts came not through the transverse but by the longitudinal stretching of the head. He holds the hand to be the best means of protecting the soft parts.

"ZWEIFEL regards symphysiotomy as an acquisition to surgery, and considers that it will become of much more importance than Cæsarean section in the universal practice of the surgeon. By waiting for spontaneous birth after the

operation we avoid the wounding of the soft parts and of the child by the forceps.

"He mentions two cases; one with the conjugate of $8\frac{1}{2}$ cm. He believes the bad after history to be often due to bad, defective adaptation, and no sewing of the joint. He has always drained the wound. The forceps should always be first tried.

"KEIN (*Gaz. de Gyn.*, 1893, No. 16) reports a case of symphysiotomy in a multipara during the third day of labour. Pelvis narrowed by fibroids of sacrum and pubis. Conj. diam. $6\frac{1}{2}$ cm.; conj. ext., 18 cm.; vaginal secretion purulent. After division the pubic bones separated $\frac{3}{4}$ cm., and a living child was easily extracted with the forceps, the bones separating to 7 cm. during traction. Hæmorrhage slight. Woman made a good recovery, although two abscesses formed at ends of incision.

"V. COCQ (*Journal de Médecine, de Chirurgie, et de Pharmacologie*, 1893, vol ii., 97) gives his conclusions on the operation of symphysiotomy, as follows: Mousan puts the pubic separation at 7 cm.; Pinard at 6 cm. For each centimetre of separation the pubo-promontory measure increases on an average $2\frac{1}{2}$ mm. The maximum separation at section with safety to the sacro-iliac joint is about 6 cm., the increase of the sacro-pubic line will then attain about 13 to 15 mm. He further concludes:

"1. It is easily performed, and requires only the usual surgical outfit.

"2. It is an operation of urgency that everyone should be able and ready to perform—like tracheotomy.

"3. The operation is legitimate only with strict antiseptics.

"4. A pubic separation of 6 cm. is without danger, and equals 22 mm. antero-posterior diameter.

"5. It is advantageous to mother and child, and the mortality is small.

"6. After forceps and version have been tried, operate if child be living, and the superior conjugate diameter be 6.7 cm.

"7. Before term, have recourse to operation in pelvis

between 4.5 and 6.7 cm. in antero-posterior diameter, the labour being artificial and premature, as by compression the bi-parietal can be made 6.5 cm. Formerly in such cases abortion was the only recourse.

"8 Embryotomy is not legitimate if foetus be living and the woman at term, unless pelvis be below 6.7 cm.

"9. Cæsarean section should not be practised in contracted pelves unless below 4 cm., except in place of embryotomy.

"10. If consulted before term, and pelvis is under 8 cm., use premature labour and select that month of pregnancy which corresponds to the length of the bi-parietal diameter of the infant.

"11. In oblique ovate pelves ischio-pubiotomy is preferable to symphysiotomy.

"LE PAGE (*Archiv. Tocol. et Gynéc.*, 1893, vol. xx., No. 5), at a meeting of the Société Obstétrique de France, April 7, 1893, presented notes of a case of symphysiotomy in a II-para for a pelvic tumour. Operation performed at the moment of dilatation with no especial difficulty, and a living child extracted. Labour went on normally after operation; forceps were used to deliver. Both mother and child made a good recovery. He formulates the following conclusions:

"1. Symphysiotomy is an operation of urgency, practicable outside of maternities.

"2. It is not merely of use in contracted pelves, but in normal ones if the foetus be very large, or if pelvis is obstructed by tumours.

"3. In the case reported, a premature labour at eight and a-half months would have been insufficient. He thinks an accurate diagnosis should be made by touch before operating. The statistics of four other cases were presented for contracted pelves. All the mothers did well. Three of the children lived; one died during birth.

"M. BUDIN reported a case where the above operation was done for a rachitic pelvis. Promonto-subpubic diameter 9 cm., accompanied by general contraction of pelvis. Patient was a I-para and long in labour. Forceps had previously

been tried. After operation the child was extracted, apparently dead, but was resuscitated and died eleven days after. Mother recovered.

"TELLIER (*ibid.*) reports a case, I-para, with pelvis of 10½ cm. promonto-subpubic diameter; pelvis *canaliculate*. When symphysis was cut there was severe hæmorrhage from branch of descending pubic artery (which, in this case, was as large as the radial), which caused much trouble. A living child was extracted with forceps; the symphysis separated 10 cm.; extensive tear of perineum and vagina anteriorly. The mother died from hæmorrhage and shock. Autopsy showed nothing beyond the tears.

"VARNIER discussed the application of the forceps at the superior strait in contracted pelvis and its relation to symphysiotomy. Those of the school of Pinard maintained that without prior section of pubes this should not be done, as it involved the greatest dangers to the child and much to the mother. The section should be complete and include the subpubic ligament, and that the pelvis be dilated before final intervention.

"BAR considered that version and moulding of the head should be tried in such cases. The value of induced premature labour was also pressed.

"PUECH (*Nouveau Montpellier Medical*, 1893, p. 433), after a record of the history of symphysiotomy, states that it is owing chiefly to strict antisepsis that the operation has been once more brought forward. The only instruments necessary to the successful performance are two bistouries, some hæmostats, and it is well also to have a chain saw at hand to divide the symphysis in case of ossification. Besides these, the physician needs also the ordinary forceps and agents commonly used to resuscitate an asphyxiated child. He recommends that the incision be made about 8 cm. in length, and should be from above downward and from before backward, following the line of least resistance. It is of importance to divide the subpubic ligament. Some operators advise incomplete section of the bones, or leaving the ligament uncut.

This the author does not consent to. A cautious abduction of the thighs shows a separation. This should not be less than 4 cm. or more than 7 cm. The expulsion of the child should not be left to Nature, but accomplished promptly by means of forceps. Out of 61 cases of symphysiotomy, 51 were delivered by forceps, 10 being by the feet. A provisional antiseptic dressing should be put in the wound before the application of the forceps. Douches should afterwards be given until the water returns clear.

"In regard to sutures, he recommends that three or four deep ones of silver wire should be inserted close to the anterior face of the pubes, followed by a few superficial ones. There is no need for bone sutures. The thighs should be approximated, and if necessary, a plaster splint can be applied. Stitches should be removed on eighth day; patient should remain in bed until the twentieth day.

"In rachitic pelves measuring over 6 cm. antero-posterior diameter, the enlargement obtained is more than that furnished in the normal pelves by the same degree of separation. This stretching may reach 6 cm. without lesion of sacro-iliac articulations. Considering only the antero-posterior diameter of the bony pelvic ring, one sees that for a pubic separation from 5 to 6 cm. the diameter increases from 12 to 15 mm. in length.

With pubic widening of 5 cm. 6 cm. 7 cm.			
the gain is as follows :			
Pelvis...	5 cm.	73 mm.	79 mm. 85 mm.
"	6 "	81 "	86 " 91 "
"	7 "	89 "	93 " 98 "
"	8 "	97 "	101 " 105 "
"	9 "	106 "	109 " 113 "
"	10 "	114 "	118 " 121 "

"*Mortality*.—Morisani, from 148 cases of symphysiotomy, gives a mortality of 27.72 per cent. maternal; 47.26 per cent. infantile.

"The author, from 73 cases of operation, gives mortality of mothers, 4.1 per cent.; infantile, 24.6 per cent.

"The operations were often done under the most unfavourable circumstances. We may also conclude that this opera-

tion is rarely followed by ultimate impairment of locomotion or micturition, and the lesions, small or serious, of the genitalia are not different from those that frequently follow difficult or prolonged forceps cases.

"Symphysiotomy is best done at the time of complete dilatation. In view of the high mortality of the children where premature labour has been induced in women with contracted pelves, it is deemed best to allow such cases to go to full term and then operate. The chances of the child are thereby increased, provided the degree of narrowing is such as to make the cases suitable for symphysiotomy.

"There is a new operation which ought to take its place with symphysiotomy and extend its field: this is ischio-pubiotomy in oblique ovate pelves with synostosis of one sacro-iliac joint. It consists essentially in section of the ascending ramus of the ischium, and of the horizontal ramus of the pubis, with destruction of all opposing fibrous parts.

"WEHLE presents a most valuable contribution to the literature of this subject (*Arbeiten aus der königlichen Frauenklinik in Dresden*, Bd. i., Verlag von S. Hirzel, Leipzig, 1893). After a careful review of the arguments advanced for and against the operation, he records the results of his examinations of pelves taken from patients of various ages, and dying under varying conditions. He doubts that ossification of the symphysis often occurs as the result of age. In 10 bodies of women beyond sixty years, ossification of this joint was not found. In examining 60 bodies, in only 8 was the joint exactly in the median line; it deflected to the left in 40; to the right in 12. Obtaining a contracted pelvis soon after death, it was fastened to a support and symphysiotomy performed; it was then found that the two halves of the pelvis rotated not only outward, but also downward, thus increasing the pelvic diameters both antero-posteriorly and obliquely. Extraction of the foetal head increased this depression of the two halves of the pelvis and also the diameters. It should not be performed if the conjugata vera is below 6.5 cm. Morisani places the lowest limit at 6.7 cm. The conditions

necessary for success are that the patient must be free from infection; the pelvis must not be ankylosed, or have an extreme oblique contraction; the foetal heart sounds must be good. It is also desirable that the woman be a multipara, and that the soft parts are sufficiently prepared. A curved, probe-pointed bistoury is recommended for severing the joint, the knife being passed from above and behind to below and forward. In looking for the symphysis, it should be remembered that it is rarely in the median line. The sub-pubic ligament should not be divided, if possible. The foetal head is then pressed into the pelvis, and labour terminated. During delivery the leg should be extended, and assistants must make counter-pressure against the trochanters. Sutures of strong silk should be passed through the skin and anterior surface of the symphysis. The pelvis should be immobilized by a strong canvas belt."

COE reports (*Medical Record*, 1893, No. 1172) a case of symphysiotomy in a primipara having a contracted pelvis and deficient in mental development. The true conjugate was barely three inches; the head presented, but could not enter the pelvis. The operation was performed under antiseptic precautions, and the joint severed by a probe-pointed bistoury. The bones did not separate to any extent until the sub-pubic ligament was divided. Version was then performed with difficulty, and the child, weighing eight pounds one and a-half ounces, was delivered deeply asphyxiated. Owing to the depth of the wound, the tissues about the symphysis were not sutured, but the bones approximated by pressure and by a strip of adhesive plaster. The patient recovered perfectly from the operation, but developed mania. She died demented two months after the operation, and a careful examination of her pelvis showed that firm union had taken place at the site of the pubic section.

In the *Nouvelles Archives d'Obstétrique et de Gynécologie*, 1893, No. 1, PINARD reports a case of Farabeuf's operation known as ischio-pubiotomy. The patient was a multipara, 32 years of age, who had borne children normally, and had

also had difficult labours. On examination, she was found to have a contracted pelvis whose antero-posterior diameter measured eight centimetres. The pregnancy was allowed to go to term, and when the first stage was well completed, the ischio-pubic branch and the horizontal portion of the pubis, five centimetres from the median line, were severed and the fœtus delivered with Tarnier's forceps. A chain-saw was used in severing the parts. A considerable hæmorrhage was checked by hæmostatic forceps. An enlargement in the size of the pelvis occurred after the section, varying from two to four centimetres in extent. After the delivery it was found unnecessary to suture the parts, as the cut edges remained in apposition. The only complication in the case was the occurrence of a sacral bedsore following the prolonged maintenance of the dorsal position.

Recent observations as to the increase in pelvic diameters following symphysiotomy have been made by BIERMER of Breslau, who reports his results in the *Centralblatt für Gynäkologie*, 1892, No 51, quoted in the *American Journal of the Medical Sciences*. He severed the symphysis pubis in four pelvises, one a patient not in the puerperal state, the remaining three women having perished soon after labour. The results as given in figures, and obtained by measuring these pelvises after section had been done, are as follows :

When the symphysis separated 1 cm. after incision, the antero-posterior diameter of the pelvic inlet was increased $\frac{1}{8}$ cm., the transverse diameter was increased $\frac{1}{16}$ cm., and the obliques $\frac{1}{8}$ cm. When the symphysis pubis separated 2 cm., the antero-posterior diameter was increased $\frac{1}{8}$ cm., the transverse 1 cm., the obliques $\frac{1}{16}$ cm. When the symphysis separated 3 cm., the antero-posterior was increased $\frac{1}{8}$ cm., the transverse $1\frac{1}{2}$ cm., and the obliques $1\frac{1}{16}$ cm. When the symphysis separated 4 cm., the antero-posterior was enlarged $\frac{1}{8}$ cm., the transverse 2 cm., the obliques $1\frac{1}{16}$ cm. When the symphysis separated 5 cm., the antero-posterior diameter was enlarged $\frac{1}{8}$ cm., the transverse $2\frac{1}{2}$ cm., and the obliques 2 cm. When the symphysis separated 6 cm., the

antero-posterior was increased $1\frac{1}{16}$ cm., the transverse 3 cm., the obliques $2\frac{1}{16}$ cm. When the symphysis separated 7 cm., the antero-posterior was increased $1\frac{1}{16}$ cm., the transverse $3\frac{1}{16}$ cm., and the obliques $3\frac{1}{16}$ cm.

When the patient was put in the lithotomy position and the symphysis pubis was incised, the two halves of the pubis separated spontaneously 4 cm. Motion could be distinctly appreciated in the right ilio-sacral joint.

When the pubic arch separated 9 cm. a cracking sound was heard in the right ilio-sacral joint, but on gentle pressure the joint completely closed. There was a separation, appreciable by the finger, of $1\frac{1}{2}$ cm. When the two halves of the pubes were so stretched that the distance between them measured $10\frac{1}{2}$ cm., a similar sound was heard at the left ilio-sacral joint. A visible separation measuring $1\frac{1}{2}$ cm. was detected in that joint.

During the year 1892 (*Annales de Gynécologie et d'Obstétrique*, January, 1893), PINARD performed symphysiotomy eight times, and those associated with him in the Baudelocque Clinic of Paris performed the operation five times—a total of thirteen cases in this clinic during 1892. The results, as regards the mothers, left nothing to be desired. The pelvis in each instance united solidly, the patients recovering perfectly in all particulars. Three of the children perished; in one case a fracture of parietal bone occurring, the child being born by extraction, the breech presenting.

The second infant was congenitally feeble, and an autopsy revealed no adequate cause of death.

In the third case the child died of fracture of one of the frontal bones; the head had been firmly engaged before the symphysiotomy, and the forceps had been applied, it being impossible to fit the instrument accurately upon the foetal head.

THE USE OF THE ESMARCH BANDAGE IN SYMPHYSIOTOMY.

TÖRNGREN, of Helsingfors, reports (*Centralblatt für Gynäkologie*, 1892, No. 49) two interesting cases of symphysiotomy performed for contracted pelvis, terminating in the death of one of the mothers and the recovery of both children. The mother perished of fatty degeneration of the heart, pulmonary emphysema, and chronic nephritis, the immediate cause of death being paralysis of the heart. In both these cases the wide portion of the Esmarch bandage was employed to bring together the severed pubic joint with great convenience. Some hæmorrhage was observed after the operation, coming probably from cavernous tissue situated around the *ligamentum arcuatum*. In one case this ligament was not divided by the knife, but it was found to have been torn asunder when the child was delivered with forceps.

SYMPHYSIOTOMY FOUR AND ONE-FOURTH YEARS AFTER
A CÆSAREAN SECTION.

From Chrobak's clinic, in Vienna, comes the account of this operation by REGNIER, who reports it in the *Centralblatt für Gynäkologie*, 1893, No. 6. The patient was a multipara upon whom BREISKY performed Cæsarean section for the relative indication four and one-fourth years previously. The patient was rachitic, and was pregnant at term. The fœtus was in transverse presentation; the pelvis a typical, flat rachitic pelvis, whose antero-posterior diameter measured $7\frac{1}{2}$ cm. After the field of operation had been made clean, the membranes were ruptured, and podalic version performed. Symphysiotomy was then easily accomplished, and the child delivered manually. The placenta was shortly afterwards expelled. Measurements of the child's head showed that birth without radical interference would have been impossible. Two silver sutures were used to unite the symphysis, and iodoform gauze packed in the lower angle of the wound. The patient made an uninterrupted recovery.

ONE HUNDRED AND TWENTY-FOUR SYMPHYSIOTOMIES.

VARNIER, in the *Annales de Gynécologie et Obstétrique*, 1893, t. xxxiv. p. 241, sums up the present status of symphysiotomy by tabulating 124 cases as follows :

Mothers : 112 recovered, 12 died.

Children : 92 lived, 32 died.

Of the mothers, 8 died from causes clearly disconnected with the operation. Of the remaining 4, 1 died of septicæmia ; 1, of sphacelus of the vulva and vagina ; 1, of cellulitis and peritonitis, due to the use of a saw and to forcible introduction of hand and arm in order to obtain version ; 1, of hæmorrhage and shock of operation and of lacerations of the perineum, vulva, and bladder.

In regard to the infant mortality, 5 cases should be eliminated, where the operation had been done in place of embryotomy ; 119 cases of living children remain. Of the 27 remaining deaths, 7 were due to causes not results of operation ; 11, to mishaps with forceps, or in version ; 7, in succession to incomplete section ; 1, to prolonged extraction due to distortion of the right arm ; 1, to cerebral lesion due to prolonged pressure on the head. Conclusions :

1. The operation properly performed does not entail immediate or consecutive disorders of the sacro-iliac synchondroses.

2. In pelves not *extremely* contracted, the enlargement resulting from the operation is sufficient for a living child at term to pass through.

3. The finding and cutting of the symphysis presents no great difficulties : only three cases out of 125 are reported where the operation has failed in this.

4. No especially dangerous venous hæmorrhages are apt to be encountered.

5. The anterior rents of soft parts may be avoided if the accoucheur remembers that after section the inferior strait is oval transversely and not of the normal shape.

PUERPERAL TETANUS.

"HEYSE (*Deutsche med. wochenschrift*, 1893, No. 14), after citing a number of cases suffering either primarily or secondarily from puerperal tetanus, states that it is interesting to note that the primary sources of infection in these cases were in nearly all either from those working in the ground or among horses. One can, however, only reckon true puerperal tetanus, those cases in which the bacillus has entered the uterus before or during labour. The claim that tetanus belongs to the group of infectious puerperal diseases has not always been admitted, as numerous attempts to inoculate the disease with endometritic material have failed. Cold, filthy surroundings, and wounds of the perineum or vagina have been insisted on as portals for the disease more probable than the necrotic uterine mucous membrane of the puerperium.

"The question, whether tetanotoxin or tetanus bacilli capable of development and spores can be maintained in the lochia, is of great importance in regard to the prophylaxis of this disease. He then describes a case where a woman died with all symptoms of acute tetanus (puerperal), and on whom, after death, was found on the left side of the posterior commissure a small, deep, fresh granulating tear. Left from the introitus vaginæ was a small ulcer, with thin yellow coat over red granulations; edges smooth and round; no infiltration. No intra-uterine manipulation had been used in the case. Infiltration of the parametrium, or of Douglas's *cul-de-sac*, was not present. Urine contained albumin, hyaline, fatty, and granular casts.

"Section showed heart-exhaustion; uterus as large as a child's head; serosa smooth and shining; muscle dull; no pus.

"Cervix showed diphtheritic endometritis. At point of former attachment of placenta, fragments could be found. No thrombi in parametrium; no sign of infection passing beyond the uterine mucous membrane. In the brain a sub-

dural hæmatoma as large as the palm of the hand was found in the occipito-parietal region. Kidney negative.

"Microscopic examination of the uterus showed on the inner wall of the endometrium small masses of staphylococci, but no tetanus bacilli were found. Inoculations of two mice with membrane taken from ulcers and uterus wall resulted in one animal dying of staphylococcus sepsis; the other lived. Five mice and one guinea-pig were injected with material taken during life from the cervix secretion on sterilized cotton. Great care was exercised in keeping this from contact with the ulcers and perineal rent. A mucous plug from the cervix was also withdrawn. All the animals thus inoculated had symptoms of tetanus, and all save one mouse died after seventy to ninety hours. A deep culture on sugar-agar was made in an incubator, and the development of anaërobic bacteria appeared in gas bubbles which came from the cotton. The presence of spore-bearing tetanus bacilli was shown directly from the cervical secretion, and guinea-pigs inoculated from this died; from them a tetanus culture was obtained.

"If the lochia of a case of tetanus contains the characteristic bacilli and spores, the case may be regarded as sure.

"A culture made from straw, dust, and floor boards, the first from the patient's bed and the remainder from the room in which she died, was injected into mice, all dying of tetanus. A grape-sugar agar culture showed the tetanus bacillus present with others, especially the staphylococcus albus and cereus."

"VENAY records 106 cases of puerperal tetanus: 47 after abortion, 59 after delivery; the greater number being near the menopause. According to these statistics the disease may break out from two to fifteen days after birth; commonly from the seventh to eleventh. He considers its prevalence due to the fact that the bacillus lives in dirt, and gives as a cause of the number of cases in the West Indies the custom of the negroes of smearing dirt on the umbilical wound of the child.

"Statistics show that it is not the greater operations that

are followed by tetanus ; tamponing and manual detachment of the placenta are those that are most dangerous.

"Venay showed 106 cases: 51 were operative; 20 followed uterine curetting, 17 tamponing, 5 forceps extraction, 3 version and artificial premature labour, one each Cæsarean section and curettement. Puerperal tetanus shows a certain connection with puerperal septicæmia, in that it prevails most amid unfavourable surroundings. The reason for the small percentage after great operations is because patients needing these go to infirmaries. Septicæmia is not merely a complication of tetanus, but begets it. Observations seem to prove that the tetanus bacillus cannot thrive save in a prepared soil of some other disease, or it is a mixed infection. French observers maintain that a pure culture of the tetanus bacilli cannot be made if they are freed, by heating to 80°, from the toxin produced. The non-toxic cultures can only produce tetanus when other bacteria are introduced, generally pus-makers, which set up a necrotic inflammation, otherwise the spores fail and are taken up by leucocytes. The other pus-producers, after setting up a massing of leucocytes, form a sort of false membrane, which protects the tetanus bacillus.

"A thorough clearing out of the uterus and careful disinfection under chloroform would seem the best treatment. Among medicines, Venay classes narcotics first, then chloral and chloroform, absolute rest, hot baths, wet pack and absolute quiet."—*Progress of Medical Sciences.*

The International Medical Magazine for August has a useful article by Dr. Charles P. Noble on the "Causation of the Diseases of Women," especially with regard to those that are preventable, and the author's views are well summed up in his conclusions that—

"If proper attention were given to growing girls, especially about the time of puberty, and a more normal development of the sexual organs secured ; if gonorrhœa were more vigorously treated, and if the subjects of that disease were kept under observation until all abnormal discharges were

arrested, and proper instructions concerning the abstinence from sexual intercourse were given; if antiseptic midwifery were faithfully and efficiently practised; if lacerations of the cervix and perineum were early repaired; and if full instructions concerning the ill effects of constipation, improper dress, and erroneous habits of living were given; the prevalence of the diseases peculiar to women would be very greatly restricted. I believe that this is to be the next great advance in diseases of women. Gynæcologists must bring home to the general practitioner the fact that the diseases of women are largely preventable, and make him feel his responsibilities both as to their production after present methods of practice and as to the possibilities of their prevention after improved methods. When the family physician realises that it lies within his power very largely to prevent disease among the women of the families committed to his care, his sense of moral obligation will spur him on to do his full duty in this matter. When that day comes the universal prevalence of disease among women will cease to be a reproach to preventive medicine."

**SUMMARY OF GYNÆCOLOGY, INCLUDING
OBSTETRICS.**

**PAPILLARY OVARIAN CYSTOMA WITH SECONDARY
GROWTHS ON THE INTESTINES.**

THEILHABER (*Münchener med. wochenschrift*, 1893, No. 15) reports a case of cœliotomy for ovarian cyst complicated with secondary growths on the intestines, the patient having ascites and being so cachectic that it seemed fair to infer that the prognosis was most unfavourable. She was in good health a year and a half after the operation—a fact which seemed fully to justify removal of the tumour in such cases, in spite of the various opinions to the contrary. Similar cases have been reported by Burt and Leopold.

POST-MORTEM BIRTH.

MORITZ (*Vierteljahrsschr. für gerichtl. Med.*, 1893, N. F., Bd. v., Heft 1, S. 93) reports a case in which the body of a woman, dying undelivered during pregnancy, was disinterred several days after burial. The body was found in an advanced stage of decomposition. The foetus was found in the coffin, and it was supposed that the pressure of gas in the mother's body had forced it from the uterus.

THE USE OF ICHTHYOL IN GYNÆCOLOGY.

HERMANN (abstract of thesis in *Centralblatt für Gynäkologie*, 1892, No. 50, quoted in *American Journal of Medical Sciences*) reports the result of observations in 150 cases in which he tested the action of ichthyol, either pure or in

watery solution, in order to eliminate the possible influence of glycerine upon the local disease. All other treatment (hydrotherapy, massage, &c.) was suspended. He finds that the drug has a distinct absorptive and analgesic influence in all varieties of pelvic inflammation, with or without exudation. He found it particularly valuable in cases of carcinoma of the uterus, establishing a differential diagnosis between cancerous and inflammatory indurations, the latter being speedily affected by its use. Pure ichthyol also proved to be valuable as an application to the eroded cervix, and ichthyol ointment (50 per cent. in lanolin) in cases of fissured nipple.

OVARIOTOMY IN JAPAN.

OMORI and IKEDA, of Fu Kuo Ka, Japan (*Centralblatt fur Gynäkologie*, 1892, No. 52) report one hundred ovariotomies, with five deaths, two of which were from complications not due to the operation. Among the tumours thirty-six were dermoid cysts—an unusual proportion, since Spencer Wells encountered only twenty-two in one thousand ovariotomies. The authors can only explain their unique experience on the theory that among Japanese women the ovaries are especially predisposed to the development of dermoids.

THE ACTION OF MORPHINE ON THE FEMALE PELVIC ORGANS:

PASSOWER (*Centralblatt fur Gynäkologie*, 1893, No. 2) affirms that the habitual use of morphine causes atrophy of the pelvic organs, and cites in support of this opinion the cases of two young women whom he kept under careful observation. In one instance amenorrhœa persisted until the use of the morphine was stopped, when menstruation reappeared, and again ceased when it was resumed. Atrophy of the vulva took place, and the depth of the uterus within two years and a half diminished from three to less than two inches. The amenorrhœa was probably an indication that the atrophic process began in the ovaries, and subsequently involved

the other genital organs. An analogy is seen in Claude Bernard's experiments upon dogs, in which atrophy of the submaxillary glands followed the prolonged administration of morphine.

**A SEVERE CASE OF OSTEOMALACIA DURING PREGNANCY
GREATLY BENEFITED BY OÖPHORECTOMY.**

A striking example of the benefit following removal of the ovaries in pregnant patients suffering from osteomalacia is given by RASCH in the *Zeitschrift für Geburtshülfe und Gynäkologie*, Band xxv., Heft 2. The patient was 41 years old, and was a multigravida. The birth of her last child occurred about a year before she came under observation. The history related that since the birth of the last child there had been pain in the back and disability in locomotion. Sharp pain was complained of in the right leg; the advent of the present pregnancy made these pains much worse, and the patient soon became absolutely unable to stand and scarcely able to move. On examination, the bones of the pelvis and general skeleton were found sensitive to the touch; the pelvis was found to be contracted; the patient's urine contained neither albumin nor sugar, her temperature after entering the hospital was usually 102°. Labour was then induced, and twins were delivered. The birth of the children, however, produced no improvement in the pain. The abdomen was accordingly opened, and the ovaries and tubes removed. The patient's improvement began on the third day after the operation, and continued to recovery. While the deformity remained the same, the patient was able subsequently to work, and is free from pain.

**A FURTHER REPORT UPON TWO HUNDRED LABOURS
CONDUCTED WITHOUT INTERNAL DISINFECTION.**

MERMANN reports (*Centralblatt für Gynäkologie*, 1893, No. 9) two hundred cases of labour conducted without internal disinfection. These cases comprised the application of

the forceps four times, one case of perforation and extraction with the cranioclast, one embryotomy for neglected transverse presentation, six versions, comprising placenta prævia and other abnormalities, one case of decomposed hydrocephalus treated by puncture, five cases where the dead fœtus was slightly decomposed, and three breech presentations terminating normally. Other abnormalities of labour presented, making an interesting collection of cases. None of these cases died, nor was any one of them severely ill. Mermann's cases now number nine hundred without a death from septic infection, but one death having occurred, and that from rupture of the uterus in placenta prævia. But fourteen of these two hundred patients showed any considerable rise of temperature. Mermann concludes from these cases that thorough, painstaking antisepsis applied to the external parts gives a mortality of *nil*; that under normal circumstances not more than 1 per cent. of rise of temperature after labour can be referred to affections of the external parts; three-fourths of 1 per cent. being caused by ptomaine infection; one-fifth of 1 per cent. of fever by pathogenic organisms already contained in the body; that when antisepsis is practised rigidly, but internal examinations are made, 3 per cent. of all rises of temperature result from small injuries received during the examination. Under these precautions, infection of the external parts is practically nothing.

VAGINAL HYSTERECTOMY AND HIGH AMPUTATION IN CARCINOMA UTERI.

TIPJAKOFF'S statistics (*Centralblatt für Gynäkologie*, 1892, No. 43) are unusually good. In 50 cases of malignant disease of the uterus treated during the years 1891 and 1892 (35 of the cervix, 12 of the body, and 3 of adenoma uteri) he performed simple amputation of the cervix 5 times, high amputation 25 times, and vaginal hysterectomy 20, without a death. He prefers complete extirpation when the entire cervix is diseased, but regards it as indispensable that the uterus

should be movable, with no evidences of infiltration in the parametria. His technique does not differ from that usually followed. He employs silk ligatures entirely, and nearly always uses gauze drainage, changing the gauze on the fourth day.

CYST OF THE PANCREAS SIMULATING OVARIAN CYST.

HERSCHE (*Wiener klin. wochenschrift*, 1892, No. 15) reports the following interesting case: A multipara, aged 32 years, had noted for five years a tumour the size of an apple to the left of the umbilicus, unaccompanied by pain or a history of previous injury or inflammation of the gastrointestinal tract. It diminished in size, but again resumed its original dimensions. On examination, it was felt through the anterior vaginal fornix to the left of the uterus, and indistinct fluctuation could be obtained. The diagnosis of ovarian cyst was made, and coeliotomy was performed. The pelvic organs were found to be normal, the tumour being a cyst which sprung from the tail of the pancreas, and was so adherent toward the vertebral column that it could not be enucleated. Nearly two quarts of chocolate-coloured fluid were withdrawn and the edges of the cyst were stitched to those of the wound. The patient made a good recovery and was quite well six months after the operation.

THE ETIOLOGY OF VAGINAL FISTULÆ.

CARL HOHENBALKEN (*Wiener med. Presse*, 1893, No. 8, quoted in *American Journal of the Med. Sciences*) calls attention to the fact that a considerable number of cases of vaginal fistulæ are due to the presence of foreign bodies, especially improper pessaries, such as the Zwank variety. He reports two cases, in one of which such an instrument remained in the vagina for sixteen years, when it finally dropped out (the patient being then 80 years old); a vesico-vaginal fistula admitting two fingers was found in the upper part of the vagina. An operation was deemed inadvisable on account

of the advanced age. In the case of the second patient, aged 65, who came to the clinic on account of hæmorrhage, a glass stopper was found in the vagina, which had been introduced fifteen years ago by a physician (!) on account of prolapsus; when this was removed a large recto-vaginal fistula, two inches long and an inch wide, was exposed.

The writer deduces the lesson that not only should the physician be careful what sort of a pessary he uses, but he should be sure that the patient is not allowed to pass from under his observation without due caution as to the necessity of having the instrument removed.

INGUINAL HERNIA OF THE FALLOPIAN TUBE.

GUINARD (*Bull. de la Soc. Anatomique de Paris*, February, 1893) reports the case of a robust young peasant woman, who since puberty had suffered with severe dysmenorrhœa and menorrhagia. Eight days after a severe confinement she resumed her work in the field; three weeks later she began to suffer with abdominal pain, and noticed a painful swelling in the left inguinal region. This gradually increased in size for a year, and finally became so painful that she was obliged to enter the hospital. On examination a second tumour was felt in the inguinal canal above the first, and was exquisitely tender. The diagnosis of hernia of the ovary and tube was made, which was confirmed, as regarded the latter, when the sac was opened. The tube was traced up to the uterine cornu, ligated and excised; the ovary was also drawn down and removed, after which the hernial sac was excised and the pillars of the ring sutured in the usual manner, the patient making a good recovery.

DECIDUOMA MALIGNUM.

GOTTSCHALK (*Berliner klin. wochenschrift*, 1893, No. 4, quoted in *American Journal of Med. Sciences*) reports the first successful operation for this rare disease, only eight cases of which have been reported, the other seven terminating

fatally. Maier reported the first case, but Säger was the first to describe it clearly and call attention to the fact that it was a distinct form of neoplasm of a well-defined type. He suggested the name *deciduoma malignum* (*sarcoma chorion-deciduo-cellulare*). Another case was described by Pfeifer, and three by Chiari, in which the growth developed at the placental site, appearing as isolated nodules, invading the deeper muscular layer and showing under the microscope a richly vascular connective-tissue stroma, in the interstices of which were groups of large polymorphous epithelioid cells, coarsely granular in appearance. Müller reported a seventh case. In each of the seven there was rapid metastasis, always in the lungs, and the patient succumbed within less than nine months. In none of these cases was a diagnosis made sufficiently early to permit a radical operation. The history of the writer's case was as follows: The patient, aged 42 years, had had two children and three abortions, the last in 1891. She was curetted after the last abortion and then menstruated regularly until December, when she again became pregnant. On February 10, 1892, she had a sudden profuse hæmorrhage and passed bits of decidual membrane. Curettage was performed, and several days later the attending physician found the cervix patent, introduced his finger, and removed a piece of decidual tissue. The patient then had a bloody discharge for six weeks, and in April was again curetted, tissue being removed, which was supposed to be retained decidua. In June she nearly succumbed after a profuse hæmorrhage. The physician who was then called found the uterine cavity filled with a reddish, spongy mass, a quantity of which he scooped out with the finger. In spite of another curettage the hæmorrhage persisted and the uterus increased in size. The writer saw the patient in July and removed fragments of tissue which, under the microscope, showed sarcomatous degeneration of placental tufts. Although the patient was then in a very bad condition from anæmia, total extirpation was performed successfully a month later.

HYSTERECTOMY FOR SOFT MYOMA OF THE UTERUS.

CHARLES P. NOBLE (*Annals of Gynæcology and Pædiatry*, April, 1893) reports a successful case of hysterectomy in a patient aged 57 years, who had noticed a tumour for three years. She had profuse hæmorrhage and was exceedingly weak in consequence of this drain upon her strength, and curetting was performed as a temporary measure of relief. No improvement followed, and removal of the uterus was determined upon. The method adopted was similar to that pursued by Baer—tying off the broad ligaments, amputating the cervix at the level of the vagina, and covering the stump with peritoneum, thus making it extra-peritoneal. The author advises the routine disinfection of the cervical canal, and the introduction, in certain cases, of a strip of gauze to render drainage through the cervical canal more certain. The tumour was large, filling the pelvis and projecting into the abdominal cavity. Patient had an uneventful convalescence.

VAGINAL LIGATION OF A PORTION OF THE BROAD LIGAMENTS FOR UTERINE TUMOURS OR HÆMORRHAGE.

FRANKLIN H. MARTIN (*The American Journal of Obstetrics*, April, 1893), proposes the ligation not only of the uterine artery, but the entire base of the broad ligament—tied *en masse*. The idea is to ligate in such a manner as to prevent the establishment of collateral circulation being derived from branches of the uterine artery which spring from the main trunk quite distant from the uterus. The ligation of the uterine artery as a step in other procedures—as preparatory to operation for uterine cancer, &c., or for the control of hæmorrhage due to laceration of the circular artery of the cervix—is not a new idea, but the author claims originality for his method of ligating the broad ligament to the extent, if necessary, of even including the ovarian artery of one side.

The operation consists in drawing the cervix uteri to the side opposite the field of operation and incising the vaginal tissues over the site of the broad ligament. Passing the index

finger into the incision and locating the pulsating vessels and ligament, introduce a curved needle armed with No. 12 braided silk, and embrace the ligament and tie firmly about an inch from the uterus. After cutting off the ligature ends, unite the vaginal incision by catgut sutures.

The effect of this ligation upon the uterine circulation is immediately apparent in the cervix; it becomes as pale as cartilage. The author reports two cases upon which he operated by this method.

One was a case of multiple fibroid (intramural) and the other a large myofibroma. Both cases were troubled with hæmorrhage, and treatment had not benefited them much. The bleeding ceased a few days after the operation, and was checked immediately after ligating. No complications arose, and the patients were able to leave the hospital a week after the operation. The following conditions are suggested as suitable for the testing of the value of this procedure:

(1) Acute hæmorrhage of the cervix from all causes, acute or chronic, which cannot readily be controlled by milder methods, as (a) rupture of the cervix in childbirth, by operation, or by any other cause; (b) cancer of the cervix.

(2) Hæmorrhage from the body of the uterus as a result of abnormal growths: (a) fibro-myomata; (b) sarcoma; (c) carcinoma; (d) intractable hæmorrhagic endometritis.

(3) For the purpose of changing the nutrition of myofibromatous tumours so that they will shrink in size, and, when of small dimensions, disappear altogether.

UTERINE CANCER ASSOCIATED WITH FIBROID TUMOUR.

FRANK (*Wiener med. wochenschrift*, No. 50, 1892) records the history of a woman, aged 41 years, from whom a fibroid tumour of the uterus was removed. The capsule had a suspicious appearance, and a small piece was cut off for microscopic examination. Adeno-carcinoma was detected, and the uterus was extirpated ten days later; the patient recovered. Frank remarks that cancer of the cervix not infrequently

accompanies myoma of the fundus of the uterus, but in the case reported the pathological changes were confined to the cervix, where the fibroid first appeared, the mucosa becoming diseased and ultimately cancerous.

MENORRHAGIA AND PERITONEAL ADHESIONS IN WOMEN.

TIPIAKOFF (*Centralblatt für Gynäkologie*, No. 52, 1892) reports three cases in which he operated for the relief of symptoms due to dense peritoneal adhesions. One of his patients, a widow of 38 years, had, in addition to pelvic pain, continuous bleeding between her periods.

At the operation there were found numerous and dense adhesions existing between the intestines and posterior surface of the uterus and appendages. Hyperæmia of the womb and tubes was present, and in severing the adhesions the uterus was lacerated, and free bleeding occurred, which was controlled by the use of the thermo-cautery. The patient had no more bleeding between the periods after the operation. Exploratory incision and separation of adhesions is recommended for these cases of old peritonitis. The opinion is advanced that menorrhagia or metrorrhagia occurring in such cases may arise from the congestion of the uterus and appendages, induced by the action of these bands of adhesions.

GLASS TROCARS FOR TAPPING OVARIAN CYSTS.

HOWARD A. KELLY (*The American Journal of Obstetrics*, April, 1893) gives a description, with illustration, of a glass trocar for evacuating ovarian cysts after opening the abdomen. The glass trocars are easily cleansed and sterilized by steam or boiling soda solution, and the clear glass "embodies the appearance as well as the principle of cleanliness," and at the same time replaces the various forms of metal trocars, which are much more expensive and more difficult to keep clean. The trocars are made in two sizes—larger and smaller—one and one and a-half centimetres in diameter respectively, and each twenty-four centimetres long.

SARCOMA OF THE UTERUS PREVIOUS TO PUBERTY.

THOMAS C. SMITH (*The American Journal of Obstetrics*, April, 1893) refers to a report made by him about ten years ago of a case of this disease occurring in a little girl 3 years of age. When first seen, there was a tumour about the size of a chestnut protruding from the vaginal orifice. The child was anæsthetized, and this and other masses were removed. About half a pound of mucous polypi was taken away from the uterus and subsequently examined by the microscope. This examination proved the growth to be "round-celled sarcoma" of the uterus. A slide was prepared and presented to the Army Medical Museum, and a recent re-examination of the specimen by the acting curator of the museum confirms the original diagnosis of this condition, which is so rare in childhood.

VAGINODYNIA—PERINEAL SPASM.

E. F. FROST (*Medical Record*, April 8, 1893) makes a distinction between this condition and vaginismus, and states that the latter trouble concerns simply the introitus vaginæ, while vaginodynia is a spasmodic affection of the whole vaginal canal—the anterior and posterior vaginal walls, the tissues of the cervix uteri, and the perineum.

The condition appears among both married and single women, and is almost always associated with a neurotic diathesis.

The writer has seen a few cases only in which the disturbance arose in patients who did not have such a temperament, and these cases were due to traumatism—too severe manipulation in making a vaginal examination, and too strong applications to the uterine cavity. Careful physical examination in the majority of cases fails to discover a cause for the spasm, and it is, therefore, ascribed to emotional conditions—a reflex neurosis. The clinical history of vaginodynia is that of a sudden attack of neuralgic pain throughout the female reproductive organs, without apparent adequate cause ; attacks are

severe, with sharp lancinating pains so intense as to cause such agony that the physician is summoned in great haste. If left to itself the attack will linger for several hours ; the pains will gradually leave, and the patient fall asleep from exhaustion. In the diagnosis of this condition we must differentiate between vaginitis, cystitis, retention of urine, passage of a renal calculus, coccygodynia, dysmenorrhœa, and neuralgia of the rectum or ovary. The most difficult differentiation is to diagnosticate between vaginodynia and vaginismus—the real difference consisting in the location and extent of the spasm.

The treatment consists in relaxing the perineal spasm, and the first measures likely to be employed by the physician may be the administration of morphia, ether or chloroform, to control the urgent symptoms ; but if the exact nature of the trouble is known the most successful plan of treatment is to introduce the index finger and middle fingers into the vagina, and with the thumb on the outside as a fulcrum, pull the perineum backward towards the coccyx. The pressure should be maintained for from ten to fifteen minutes, or until the perineal muscles are tired out.

The relief experienced by the patient is instantaneous. Other periodic attacks are likely to follow after a few days, or possibly in a few hours. During the intervals between these attacks certain drugs may be useful, the writer having found the fluid extract of conium, and fluid extract of belladonna, to serve him the best. It is the belief of the writer that this perineal spasm is often the most disturbing symptom in many cases of dysmenorrhœa.

ACUTE PERITONITIS FROM THE RUPTURE OF A DERMOID CYST IN A PUERPERAL WOMAN.

TISON (*Revue Obstétrique et Gynécologie*, May, 1892) reports the case of a primipara who had been delivered by forceps. On the following morning symptoms of peritonitis presented themselves. The condition became worse, and the

woman died five and a-half days post-partum. The autopsy showed as cause of the peritonitis a ruptured dermoid cyst of the left ovary. The cause and time of rupture could not be determined.

CÆLIOTOMY WITH LOCAL ANÆSTHESIA.

LARGEAU (*Annales de Gynécologie et d'Obstétrique*, May, 1893) reported before the French Surgical Congress, at its recent meeting, a double ovariectomy performed upon a patient suffering with advanced heart disease. No anæsthetic was administered. Local anæsthesia was produced over the line of incision by the use of powdered chloride of ethyl. He had previously operated in the same way for ovarian cyst and in a case of ovarian hysterectomy.

Largeau believes that the performance of abdominal section in cases suffering with cardiac disease, without general anæsthesia, is perfectly justifiable and practicable, and quotes the above case as proof.

HOW IS TUBERCULAR PERITONITIS CURED BY CÆLIOTOMY?

BUMM (*Centralblatt für Gynäkologie*, No. 22, 1893) analysed a case of tubercular peritonitis where, after opening the peritoneum and draining off the ascitic fluid, the patient did well.

He believes that the operation sets up changes in which the tuberculous deposits undergo a round-cell infiltration and cicatricial change. The giant cells and epithelioid elements disappear. The serous fluid greatly promotes the growth of the tubercle bacillus, and its removal is, therefore, also beneficial.

REMOVAL OF A FIVE-POUND LITHOPEDION.

GATTSCIALK demonstrated before the Gesellschaft für Geburtshilfe und Gynäkologie zu Berlin (*Centralblatt für Gynäkologie*, No. 17, 1893) a lithopedion, or lithokelyphopiedion, weighing five pounds, which he had removed by

cœliotomy. The patient from whom the tumour was removed was 54 years old, and four years advanced in the menopause. She had carried the tumour for thirty years.

Thirty years before, a diagnosis of extra-uterine pregnancy had been made by her attending physician. At the normal end of the pregnancy severe pains occurred, lasting several days, and ceased with the movements of the child. This was followed by a severe attack of peritonitis, which confined the patient to her bed for eighteen weeks. She then slowly regained her health and was regular in her menses until her fiftieth year.

Cœliotomy was indicated by the severe appearances of incarceration, especially with reference to the bladder, afforded by the head firmly impacted in the vesico-uterine excavation. The uterus was pressed backward and upward in the concavity of the sacrum by a tumour of stony hardness.

Examination of the specimen proved the tumour to be a pure ovarian pregnancy. The sac, formed by the ovarian coverings, was from one to several millimetres thick. In the external layers of the sac various corpora lutea and several follicles could be recognised. Under the outside layer was a thicker stratum of chalky substance enveloping the well-preserved foetus. On the inner surface of this layer the placenta was attached. The vessels were yet dilated to the thickness of a little finger.

The tumour, which reached to the umbilicus, was related topographically to the uterus as an ovarian tumour. Its normal left tube was stretched, but not otherwise changed. The seat of the tumour was upon the posterior surface of the lateral ligament.

The patient made a good recovery.

SURGICAL TREATMENT OF ACUTE GENERAL PERITONITIS.

Dr. G. M. EDEBOHLS (Discussion in the New York Obstetrical Society, February 21, 1893; *New York Journal of Gynæcology*, April, 1893) thought they could all agree on the subject of localised acute peritonitis, and that as soon as

they could find the best route for reaching the localised collection of pus, it was best to evacuate the abscess. He thought, however, that the author presented altogether too favourable a picture of the surgical treatment of acute general peritonitis. He had cited a number of cases of acute general peritonitis following appendicitis in which he had operated. He could not but envy the author's condition of mind which enabled him to approach these operations with certainty in his mind as to just what procedure should be adopted, for the majority of surgeons, he believed, were very uncertain as to what should be done; they had no invariable rule of procedure and were compelled to treat every case individually. Four or five years ago there was an outbreak of puerperal septicæmia in the vicinity of St. Francis's Hospital, and consequently many of the cases reached his service there. Many of these were examples of acute general peritonitis, and he performed a number of cœliotomies upon them. He found that when he could evacuate the localized collection of pus, even when the symptoms of sepsis were severe, and whether or not he proceeded through Poupart's ligament or through the abdomen, the cases as a rule recovered; but of at least five or six cases of acute purulent general peritonitis following abortion or labour in which he had performed cœliotomy, every one terminated fatally.

There is another class of acute purulent peritonitis, those due to leakage of pus-tubes or rupture of an ovarian abscess. The operative treatment of such cases is usually successful, but when the peritonitis becomes general, it is almost as hopeless as a case of purulent peritonitis. Dr. Lusk said that he had formerly held the opinion that operative cases did not do well in summer, but last summer, after lecturing on a case which he thought illustrated this point very well the patient informed him confidentially that she had syphilis. This, of course, explained the sluggishness of the healing process in her case. Cœliotomy certainly gives the best prospect of success where there is a purulent collection in the abdominal cavity. But puerperal septic general periton-

itis is an exceedingly fatal disease whether or not abdominal section be performed, unless it is the result of a pus-tube which can be removed, and so remove the cause of the trouble. A septic peritonitis in these puerperal cases ordinarily is only one feature of the septicæmia; the streptococci attack the red corpuscles and destroy them, and this causes death in spite of abdominal operation. Dr. Polk, regarding the treatment of general peritonitis, agreed with Dr. Edebohls that after the disease had become general, especially if of the variety which originated in the appendix, very little could be done to save the patient. The author had not made sufficiently clear the necessity for impressing upon every one the fact that the only time an operation is of service in cases of peritonitis is before general infection has occurred, especially if the peritonitis originates in the appendix or is of puerperal origin. Dr. Currier endorsed what had been said about the general hopelessness of abdominal operations in cases where sepsis is general, and he thought this also was the position taken in the paper. It was perhaps a question whether it is not better in the interests of good surgery not to interfere in cases where sepsis has existed for some time and where cœliotomy will most probably precipitate a fatal termination. Dr. Wylie did not believe in idiopathic peritonitis, and modern pathologists, he thought, do not recognise such a condition. Abdominal surgeons frequently see cases of general peritonitis, yet they are not allowed to operate in the early stages when the patient is in good condition. He had operated on eight cases where there was pus with the result given in the paper, and they should not therefore say that these cases were hopeless, for his statistics did not support this view. No matter how bad the case, if there is any chance of saving life by operation, then he believed in resorting to it. There may be puerperal cases where it is useless to operate, but he knew of no method offering any better chance. It is utter nonsense to say that there is any special difference between peritonitis arising from suppuration around the appendix and peritonitis arising from other causes; the

only difference is that the peritonitis from the appendix is apt to be much more virulent than that from a ruptured tube. The principles of treatment, however, are the same in both conditions.

VESICAL TUBERCULOSIS IN THE FEMALE, &c.

STEWART PATON, M.D. (*New York Journal of Gynæcology and Obstetrics*, March, 1893, quoted by the *International Medical Magazine*, August, 1893). This is an extremely interesting paper and an important one. The author states that by the new and perfected methods of examination of the bladder and urine the possibility of an error in diagnosis is much less than it was a few years ago. Tuberculosis of the bladder is said to be much more common in the female than in the male—four times greater according to Strümpell—which statement the author corroborates. He states that it is doubtful if the bladder is ever primarily affected by the passage of tubercle bacilli through the glomeruli of the normal kidney. Cases of intractable cystitis, which seem to be made worse by local treatment, should always arouse suspicion. This is particularly true if bright blood appears in the urine—generally a few drops after urinating—though blood does not appear in the urine usually until a late period in the disease. He called special attention to the *urethral pain*, which is generally described by the patients as a “throbbing pain,” so severe as often to detract from the bladder, and this is found in cases where no tubercular lesion is discovered, either at the neck of the bladder or in the urethra. The character of the urine should be carefully noted. It is generally limpid, pale yellow or straw-coloured, and at times of marked hyper-acidity. It may or may not contain bladder-cells from the superficial or deeper layers, but frequently countless numbers of bacteria are present. These are of the ordinary fermentative variety, and occasionally, by staining, the bacillus tuberculosis is found. The centrifugal apparatus should always be used, and, if this fails, inoculation experiments upon guinea-pigs should be under-

taken. A cystoscopic examination would probably reveal local ulceration. In regard to treatment, where ulcers are visible with the cystoscope, curettage is recommended. The patient can be placed for a few days on salol, to render the urine as innocuous as possible, supra-pubic cystotomy performed, and the surfaces thoroughly curetted.

GONORRHOËAL INFECTION FINALLY PRODUCING OVARIAN ABSCESS.

F. B. ROBINSON, M.D. (*American Journal of Obstetrics &c.*, April, 1893, quoted in the *International Medical Magazine*, July, 1893). A specimen of this character was submitted to the Gynæcological Society of Chicago, December 16, 1892. The woman had been married seven years to a man who had been previously treated by several physicians for gonorrhœa. In discussing this case the author makes the following statement:—"This is a typical example to show that the ovaries become secondarily diseased from the tube. The course of gonorrhœa in women is mainly along the cylindrical epithelium. First, the gonococcus infects the urethra and vulvo-vaginal glands; second, the endometrium suffers, as it is cylindrical epithelium; third, the same remarks apply to the cylindrical epithelium of the endosalpinx; fourth, the germinal epithelium (cylindrical) of the ovary becomes infected; and, fifth, the gonorrhœal infection spreads into the membrana granulosa (cylindrical epithelium) and ovarian cystic degeneration occurs, and it may require years to produce pus in an ovary from gonorrhœa."

In the discussion which followed this reported case the author stated that when he found the tubes inflamed and knew it was of gonorrhœal infection, he had yet to know of a woman getting well. They get better, but they have a recurrence. Therefore, when he finds the appendages of a woman diseased, and that woman has had gonorrhœa, he tells her that she is better off without her tubes, but not that she will die. The experience of Dr. H. T. Byford

did not agree with this, as he stated that he had seen cases of gonorrhœal salpingitis get well. Dr. F. Henrotin made a similar statement, illustrating his remarks by a case where the husband had acute gonorrhœa and the wife contracted it with a vulvitis, inflammation of the vulvo-vaginal glands, and, finally, extension to the endometrium; but in this case no mention was made of a distinct salpingitis, though possibly, from the reading, it existed. It must be borne in mind, according to the statement of Bumm (*Münchener Medicinische wochenschrift*, 1891, Nos. 50 and 51), that infection does not pass readily to the tubes and peritoneum, that the external and internal os prevent the gonococci from entering the uterine cavity, and that the gonococcus thrives but poorly upon serous surfaces when it enters the peritoneum, and then usually takes the septic form of disease. The statistics which he gives of fifty-five cases show fifty cases had gonorrhœal urethritis, forty-one gonorrhœal cervicitis, eight infection of the uterine cavity, and two infection of the tubes. The report of this discussion is very interesting, and deserves careful reading by those who are doing much work in this line of practice.

PELVIC DISEASE IN THE INSANE.

ALICE BENNETT, M.D. (*Report to Board of Trustees, State Hospital for the Insane, Pennsylvania*). The summary which is attached to this report is interesting, as it covers the ground of the present discussion that is going on, on this subject. The care of the insane certainly involves the same attention to their bodily ailments as is given to those in full mental vigour, and if, in any special case, any reasonable hope is offered that the insanity is caused by any removable condition, the operation, which may be in that way partially experimental, is just as much a matter of necessity as the trial of a new drug, or any other therapeutic or hygienic measure. The summary is as follows:—"Of six cases operated upon, three, or half the number, have perfectly recovered

in body and mind ; one is much improved ; one is improved in some respects and not in others ; one died. It is of interest to note that five of the six cases were of puerperal origin. I want to emphasize the following facts :—(1) That cases were selected for operation only after thorough and searching examination, with consultation, often repeated. (2) That each case selected for operation was the subject of serious bodily disease, such as may properly be, and habitually is, treated by surgical interference, quite apart from the insanity, which is only an incident, or symptom, of such disease. (3) That in every case of operation performed the consent of the nearest relative, or guardian, of the patient was obtained. Finally, I want to say that I believe that many cases now under our care, and others yet to come, might be saved from years of physical suffering, from hopeless dementia—even life itself might sometimes be saved—by appropriate surgical treatment. In other and similar cases in the future I cannot reconcile it to my conscience to be merely a passive observer and recorder of their decline. If, in Pennsylvania, insanity is to be a barrier to the treatment of bodily diseases, it will be my duty to urge upon the guardians of these helpless ones, incapacitated for speaking on their own behalf, the necessity for taking their suffering charges, outside the State limits if need be, wherever they shall be free to receive the treatment adapted to their needs."

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THE BRITISH GYNÆCOLOGICAL SOCIETY.

THURSDAY, JULY 13, 1893.

F. BOWREMAN JESSETT, F.R.C.S., PRESIDENT, IN THE CHAIR.

PRESENT : 31 Fellows and Visitors.

Mr. J. Walker Smythe was elected a Fellow of the Society.
Dr. Arthur B. Blacker was nominated for the Fellowship of the Society.

Specimens.

Dr. HEYWOOD SMITH showed two specimens :—

(1) The patient, a single woman, aged 34, was admitted at Warrington Lodge on June 8. She was suffering from a fibroid in the uterus and from ovarian disease. On June 12, she was operated on: both the ovaries and tubes were removed. The chief point of interest was the difference in the condition of the two ovaries, which were both cystic. The cyst of the right ovary had a smooth lining, but that on the left side was lined by a rough membrane resembling closely a gestation sac. Inside was a body about the size of a bean; but no trace of a foetus was found. The left tube was

ruptured in bringing it to the surface; it was dilated. The operation lasted eighteen minutes, and the patient left well on July 10.

(2) This was a case of a widow, aged 51, who had had eight children. She had been under observation since 1877, and her history was very interesting, because the conditions found on examination varied so much from time to time. She was first seen by Dr. Heywood Smith at The Hospital for Women in 1877; she was then under treatment for chronic cervicitis, and no tumour of the appendages was found. In 1878, the right ovary was enlarged and prolapsed behind the uterus; in 1881 it was larger still. By November of the same year it could not be felt at all. In 1882, a small tumour was found; it had disappeared again in 1883. In 1887 also no tumour could be found. In 1891, the catamenia ceased. In 1892 and 1893, the ovary was enlarged and prolapsed. From time to time there had been a discharge of watery fluid. The case was probably one of the somewhat rare condition of intermittent hydro-salpinx. At the operation both ovaries and tubes were removed, and six stitches introduced. The whole operation lasted only twelve minutes.

The PRESIDENT, commenting on these two very interesting cases, said that the second case was of special interest, because of its analogy to hydro-nephrosis.

Dr. HEYWOOD SMITH suggested that the two specimens might be referred to the Pathological Committee to report upon, and this was agreed to.

Dr. TRAVERS narrated the following case of *Extra-uterine Gestation*, and showed the specimen:—

M. A., aged 34, married second time fourteen months since, after seven years widowhood. Two children by former husband, youngest eight years old. Periods always irregular and painful—seven to ten days—loss very free. Aborted in September last, at two months; out of health for some time after. Thought she again became pregnant in February, 1893. Some six weeks later, after lifting heavy weight, was seized with violent pain, and fainted; no loss from vagina. Did her

work for a fortnight, but grew steadily weaker. Her medical attendant ordered her complete rest, fearing another abortion ; there was much pain over abdomen, for which poultices were applied. A fortnight after the onset of this last attack, a slight brownish discharge occurred and persisted. Her general health steadily deteriorated, and febrile symptoms set in.

Under the advice of my colleague, Dr. Schacht, who considered the history pointed strongly to extra-uterine gestation (she had been about a year previously under his care in the out-patient department), she was admitted into my wards—this was on May 25, six weeks after this illness had commenced. Her temperature, on admission, was 100.2°, pulse 120; she looked very ill and anæmic, but not at all presenting the appearance of one suffering from internal hæmorrhage. The abdomen was very tender all over, markedly so over right iliac region, and towards umbilicus.

On vaginal examination a sausage-shaped mass was felt in Douglas' pouch, fixed to the uterus ; above this, high up, a rounded body existed. There were no symptoms of collapse. After two days' watching, as it was evident she was becoming generally worse, I opened the abdomen ; blood showed clearly within the peritoneal cavity through the unopened peritoneum, and on its incision founted out freely ; the cavity contained much clot and liquid blood. The mass above noted was found to be the right tube enlarged, much torn in its outer third, and grasping a rounded lump of seemingly placental tissue. The hæmorrhage was still very free, so much so as—despite rapid sponging—to prevent any good view of the state of the parts. The right appendage was tied at once, which checked the hæmorrhage for the most part, but in separating the tube from the posterior wall of the uterus, to which it was very firmly adherent, the blood again flowed freely ; I therefore secured the appendage on the opposite side, when at once all hæmorrhage ceased. The right tube and its contents were now removed, the cavity of the abdomen well washed out, and a drainage tube placed in, but removed at the end of twenty-eight hours. Some eight ounces of water were purposely left

in, and was very rapidly absorbed. The patient caused no further anxiety. The temperature never rose above 100°; she convalesced very rapidly, and was sent to St. Leonards on the twenty-third day.

Pathologist's Report (Dr. Shaw Mackenzie).

"The specimen consists of a dilated and ruptured tube, with well-formed placental mass, and blood-clot size of a small tangerine orange, which in recent condition occupied the tube at the site of rupture. Rupture has occurred downwards into broad ligament. Fimbriæ of tube well marked. Corresponds to eight weeks pregnancy."

Dr. SCHACHT showed a specimen of *Ruptured Tubal Gestation*, and gave the following notes of the case :—

E. V., aged 30, married eight years.

History.—Catamenia regular, till fourteen weeks ago; since then amenorrhœa, with exception of a slight show one week ago for a night and day; clot and something fleshy passed. Chronic pain in right inguinal region during last two years. Morning sickness has been present, but no fulness or tenderness in mammæ.

Seventeen days ago, while lying in bed, sudden pain with faintness and sickness was felt in right lower abdomen, where for about three months previously she had been liable to intermittent nauseating pains, irrespective of position of the body. She thought pain was like that at menstrual period, only sharper. Pain lasted two hours; has been laid up since. Next day similar pain was experienced for about one hour.

On May 17 (day before admission) patient got out of bed (contrary, apparently, to orders) and was seized again with very severe pains, and she fainted. Mr. James Farr was sent for, and in consultation with his brother, Mr. Arthur Farr, the diagnosis of probable ruptured tubal gestation was made. The patient was moved to hospital as soon as arrangements could be made.

On admission patient looked very ill and blanched, with

that drawn expression of features so suggestive of abdominal trouble and pain. Temperature 97.8°, pulse 104, respiration 28.

Examination on admission.—Mammæ somewhat enlarged; some darkening of areolæ; drop of watery secretion can with difficulty be obtained. Slight general abdominal fulness. Tenderness *not* general, but across lower abdomen, especially in right inguinal region, where on light palpation is felt a roundish mass—not very hard—rising to about two inches below umbilicus, and extending from central line almost to ileum. Over this region, dulness on percussion, whereas on left side percussion note is clear.

Per vaginam.—Cervix fairly hard to left of median line. Uterus apparently pushed over to left by mass which occupies right fornix. This mass is continuous with mass felt per rectum. Gives the idea of rounded elongated tense semi-solid mass. In Douglas' pouch is felt a rather harder rounded mass, only a slight depression separating it from the former. To the right of cervix, as the finger passes on to the mass, is felt a vessel distinctly pulsating.

Per rectum.—Nothing further elucidated.

A consultation was at once held, and immediate operation decided upon.

Operation.—Ether was administered and the usual abdominal incision made. On opening the peritoneal cavity blood welled up. The mass felt previously proved clearly to be a much distended right tube, pushing a somewhat enlarged uterus over to left. It was drawn up gently, a bleeding point temporarily controlled, a double silk ligature tied close up to the uterus, and the mass removed. On mopping out Douglas' pouch with a sponge, a large blood clot was turned out in which the foetus was enveloped. About eight ounces of fluid blood, besides many clots, were removed during the operation. The abdominal cavity was freely washed out with hot water, all clots removed, Keith's glass drainage tube inserted, and the wound brought together.

The progress of the case was for the first fourteen days satisfactory. The drainage tube was removed at the end of

forty-eight hours, two ounces of red coloured fluid only being drawn off, notwithstanding that a considerable quantity of water had been left in at operation. The only cause for any anxiety lay in the pulse, which varied from 130 to 140 during the forty-eight hours after operation. The patient was consequently fed with nutrient enemata and brandy every four hours. The general condition slowly improved, but though the pulse came down to 104 on the fifth day, it was still over 100 on the tenth day. No doubt there was a distinct nervous element in it. The vascular condition at this time existing probably accounted for the "white swelling" which began to manifest itself in the left leg on the sixteenth day. This condition, after being acute for three days, gradually subsided, and the patient was sent to the Convalescent Home six weeks after the operation.

Dr. SHAW MACKENZIE (our Pathologist) kindly reported on the specimen as follows:—"It consists of dilated ruptured tube and foetus, age $2\frac{1}{2}$ months. The tube and contents as removed consist of elongated oval mass, on splitting which longitudinally a well-formed placental mass and blood clot are seen distending the tube. Rupture has occurred primarily downwards into the broad ligament, but upwards also, and this accounted for much hæmorrhage into the abdominal cavity and escape of the foetus."

Remarks.—The history of this case furnishes a typical record of an extra-uterine gestation, with rupture at about tenth week. (1) Amenorrhœa eleven weeks after four years' sterility. (2) Sudden pain while resting referred to one inguinal region lasting a short time. (3) Recurrence of pain with collapse. (4) Tumour present in situation of one tube. No doubt mass felt in Douglas' pouch, and noted specially, was foetus enveloped in blood clot. (5) The pulsating vessel very marked. This is quite in accord with what was so carefully noted in the cases reported by Drs. Cleghorn and Shaw-Mackenzie in the BRITISH GYNÆCOLOGICAL JOURNAL, part 30. (7) The general condition of the patient indicating serious pelvic mischief and collapse.

The PRESIDENT considered that these two cases were of very great interest. He often thought of what must have taken place in former years, when the subject of ectopic gestation was hardly known. No doubt many patients died, as would have certainly been the case with these two if such prompt action had not been taken.

Dr. SCHACHT remarked that the first patient had been under his own care a year previously. When the symptoms began the abdomen was distended, rendering bimanual examination very difficult, so the diagnosis was not clear, but the history pointed to gestation. On the day of the operation the patient became worse, and it was thought that fresh hæmorrhage had occurred, so the operation was performed without delay. The second case had struck him as of great interest, because the history, symptoms, and appearances found at the operation were the most typical he had met with. The pulsation in the vaginal roof could be very distinctly felt, but no "bruit" could be heard.

The PRESIDENT showed a uterus which he had removed only a few hours previously by abdominal hysterectomy. He purposed to bring the case before the Society more fully later on, but as the method of operating was somewhat novel, he thought it worth while to show the fresh specimen, and give a short preliminary account of the case. In a recent discussion on abdominal hysterectomy,* introduced to the Society by Prof. Japp Sinclair, he (the President) had suggested that it would be a better operation to remove the uterus entirely, than to leave the cervix; for when the stump was left there was danger of a *cul-de-sac* being formed between the stump of the uterus and the floor of the pelvis into which hæmorrhage might occur; and this might go on to suppuration. So he suggested that instead of suturing the peritoneum—as suggested by Heywood Smith, Treves and others—long threads might be passed through the edges of the peritoneal flaps, and, without being tied, passed down into the vagina, so as to

* Vol. ix, part 33, p. 89 of the Transactions of this Society.

draw down the opposing flaps. This was the first time he had had an opportunity of putting this suggestion into practice. At the operation, an assistant held a Ferguson's speculum in the vagina, so as to push up the uterus. He ligated the ovarian vessels, made two peritoneal flaps, fore and aft, and then, applying an elastic ligature as low down as possible, he secured the uterine arteries. The elastic ligature could then be safely removed. The assistant then lifted up the cervix with the finger in the vagina, and he (the President) then cut down as far as the external os, with scissors, in much the same way as in doing a vaginal hysterectomy, except that he cut from above downwards, instead of from below upwards. A long forceps was then passed up from the vagina, and all the ligatures were brought down. Six sutures were then passed through the peritoneal flaps, as follows:—Each one was passed from the vaginal raw surface towards the serous surface of the flap, carried over the edges of both flaps, and passed through the second flap from the serous towards the vaginal surface. These sutures also were brought down into the vagina and drawn tightly, with the effect of completely closing the peritoneal floor. With the speculum, the vagina was then packed with iodoform gauze, as after a vaginal hysterectomy, firm traction being made on the flap sutures. This method of operating seemed to him an improvement as the whole raw surface was turned into the vagina, and if any hæmorrhage occurred it could be at once seen, and could readily be arrested by packing the vagina. He would bring the further history of the case before the Society.

Dr. PURCELL had seen the President perform the operation, and congratulated him on the way he did it. The operation seemed to him a simple one. The cervix in this case was very long, probably five to six inches, and its separation lengthened the operation somewhat. Previous to operation, the uterus seemed to extend up to the umbilicus, and could be felt at times under the liver. The operation as described had not been done before in this country. He thought it was even more satisfactory than vaginal hysterectomy.

Dr. HEYWOOD SMITH thought that if the cervix had been dilated, it would have been easy in this case to enucleate the myoma *per vaginam*. He asked the President how long the operation lasted, because he thought the time was an important factor in an operation. He thought the great advantage of this method was the doing away with the preliminary vaginal operation, and there was also less risk. It would probably be the operation for the future. It was, however, easier to secure the uterine vessels when the stump of the cervix was left.

Dr. SCHACHT asked what length of incision was necessary, in order to work so low down in the pelvis. No doubt the operation would be much easier in some cases than in others. He would ask also whether for this operation it was necessary to prepare the vagina in any way.

The PRESIDENT, in reply, said that in this case enucleation would not have been practicable, as the myoma was intramural. He found no difficulty in securing the uterine arteries, as they could be distinctly felt and seen pulsating under the fingers. But there was a vaginal branch outside, which might sometimes give trouble. It was not necessary to work very deep down in the pelvis; as soon as he had got down to the vagina, he lifted up the whole thing with a hook, so as to have the parts well under control. In operating this way, if there was any hæmorrhage at all it occurred in the vagina, and so could be easily seen and dealt with. As a rule, no drainage tube was necessary. While packing the vagina he held the two flaps down by means of the sutures. The packing was left in for three to four days. The length of incision would in these cases vary with the size of the tumour. This tumour was, he thought, a myoma; but it might have taken on a sarcomatous character later.

The Society then adjourned.

THE BRITISH GYNÆCOLOGICAL SOCIETY.

THURSDAY, OCTOBER 12, 1893.

F. BOWREMAN JESSETT, F.R.C.S., PRESIDENT, IN THE CHAIR.

PRESENT : 28 Fellows and Visitors.

The PRESIDENT showed three specimens of uteri which had been removed by caustics.

(1) The patient was aged 37, and had borne three children, the last eight years previously. For the last two years she had had frequent hæmorrhage *per vaginam*; previously she had been regular. The cervix was found, on examination, to be deeply infiltrated with cancerous disease, but it was slightly movable. On September 26, the uterus was scraped out with his dredger, and after all the diseased portions had been removed as far as possible, the uterine cavity was plugged with chloride of zinc. He had not at hand the pledgets of cotton wool wrung out of a saturated solution which he generally used, so he employed a strong paste, in which the cotton wool was soaked. Then tampons soaked in a strong solution of carbonate of soda were introduced. There was no subsequent pain or other disturbance. Ten days after a large slough formed, consisting of what appeared to be the whole uterus, which came away easily. The patient is doing well.

(2) A patient aged 38, who had had fourteen children and one miscarriage. There was no family history of cancer. She had had an offensive discharge for six months. The cervix was deeply infiltrated, and the vaginal walls were involved. On September 26, she was treated as in the preceding case. On October 7, a large slough came away, consisting apparently of the entire uterus, bringing with it a part of the wall of the vagina and sloughing into the rectum. She has been passing fæces *per vaginam*, but otherwise she has had no bad symptoms, and has been free from pain.

Subsequently iliac colotomy was performed, and the patient made a good recovery.

(3) This patient, aged 43, had had hæmorrhage since April, with much pain since July, and a watery discharge for a month. She had had one child and one miscarriage. Her grandfather died of cancer of the liver. The uterus was one mass of disease, and the vagina was implicated. Operation as above on September 25. On October 7, a large slough comprising the whole uterus came away. There have been no bad symptoms.

He had brought these specimens before the Society because he believed them to be almost unique. Sir Spencer Wells, however, had had a very similar result in a case where he used perchloride of iron; the specimen was now in the Museum of the College of Surgeons. The slough came away much as in his own cases, and the woman made a good recovery. He could say nothing at present as to what would be the ultimate issue in these cases. All three when he saw them were unsuitable for vaginal hysterectomy, and formerly he would have treated them simply with anodynes and deodorant injections, and they would have died in a month or two. The present procedure was in its intention palliative; he could not say whether ultimately a cure would result. He had treated about twenty such cases with chloride of zinc, but none of them so radically; he had, however, had complete casts of the interior of the uterus come away. Several of those operated on had remained up to the present time—that is to say, for many months after operation—free from disease. He would not advise that all cases be treated after this fashion, but if patients who formerly had been simply allowed to die could be given at least a short time longer to live, and that free from pain and from unpleasant discharge, he thought that it was worth trying.

Dr. PURCELL congratulated Mr. Jessett on the favourable issue in these cases. He would have liked to see the specimens out of the spirit. He presumed that it was a necrosis of the entire body of the uterus. But one of the specimens seemed to have attached to it the round ligaments and part

of the tubes; the others seemed to have come away without the appendages. It was a question how much tissue the chloride of zinc had destroyed; in one case a part of the rectum, and in the other two the posterior vaginal wall had come away. What strength of chloride of zinc ought to be employed to secure complete necrosis without producing so much damage as had resulted here? It would be interesting to follow up these cases and see what the condition of the parts was in a short time.

The PRESIDENT here observed that he had just received a note from the pathologist of the Cancer Hospital, saying that a microscopical examination showed that the first specimen was a case of epithelioma, and the other two were scirrhus, the third showing very active karyokinesis.

Dr. ROUTH said it would be interesting to have some further particulars of the state of the parts surrounding the uterus, because if the disease had already gone too far, we could not expect ultimate recovery to take place. As far back as 1848 he had seen Dr. Huguier adopt a somewhat analogous procedure; he took a stick of caustic, and left it in the uterus. No bad effects ever followed, except sometimes a little griping pain; the whole lining of the uterus came away with the caustic, and many of these cases were cured. There was no preliminary scraping of the uterus; this was the novel and important feature in Mr. Jessett's procedure.

At the Samaritan Hospital, he used to employ sea-tangle tents dipped in bromine, strength one in five: the cervix was protected with cotton wool dipped in carbonate of soda. Just the same thing took place. He had published several of these cases. Any caustic would act in the same way, but in every case the external parts should be guarded. He could recommend for this purpose the strong acid nitrate of mercury; with this he had been able to clear away nearly the whole uterus. All the pain and discharge ceased in these cases. Occasionally, however, the nitrate of mercury so used had produced salivation. But unless we knew that the surrounding parts were *not* affected, it was not worth while to do more than employ palliative measures.

Dr. NAPIER thought it would be interesting to have more information. Had the whole uterine peritoneum been removed? or was the action of the caustic only exerted on the muscular and glandular tissues? How could we judge of the relative amount of benefit and injury? Could we regulate the action of the caustic? Would the vessels of the pelvis be spared? Or must we proceed on a somewhat happy-go-lucky principle? He would suggest that the specimens be referred to the Pathological Committee, that the condition of the peritoneum might be studied. To the younger generation these specimens were quite new.

Dr. HEYWOOD SMITH had had much experience of this treatment, which was advocated first by Dr. Marion Sims. In his own cases he had generally found that the slough came away before fourteen days. Marion Sims used to remove the soda plug after twenty-four hours, and the chloride of zinc plug after four days. He had never seen the whole uterus come away like this: the slough was as a rule about half an inch thick. It was important that the caustic should not trickle down the vagina: for this, it was well after soaking the cotton wool, to let it drain for some time, so that it was just damp—there was then no superfluous caustic action. The peritoneum did not seem to have sloughed in these cases, perhaps it had a protective action; but this would depend on the time that the caustic was left in the uterus. He would like to know how long it remained in these cases. Other caustics might have a similar action. He had never seen any bad effects when the procedure was carried out according to Marion Sims' directions.

Dr. BANTOCK also congratulated Mr. Jessett on his fortunate results, for there was necessarily much uncertainty in these cases. He thought it was rather serious for a woman to have both her passages thrown into one, so that a kind of cloaca resulted. As Dr. Heywood Smith had remarked, this method was first advocated by Marion Sims, who removed first as much tissue as possible. But it was very difficult to regulate the caustic action, and he believed

that Dr. Sims had given up the method. He had used it in a few cases, but for a palliative, not for a curative, purpose. The operation relieves pain, at least for a time, and lessens or removes the discharge, but in cases like Mr. Jessett's, where the whole uterus comes away, we are incurring a new danger, for it is difficult to see how intestines and other delicate organs can escape injury. The operation has at best a limited value; but if we had in view a more permanent result, we might use the actual cautery, which we could control in a way that was impossible with the chloride of zinc.

THE PRESIDENT, in reply, said that these cases were, of course, quite unfit for vaginal hysterectomy; otherwise he would not have used the caustic. The paste was used in default of the ordinary prepared wool, and the cotton wool was consequently not quite so dry as he could have wished, but in any case it was very difficult to avoid the vaginal walls altogether. He had used bromin only once, and the acid nitrate of mercury not at all; but in one case where some of the disease was left after the greater part had been removed by the chloride of zinc, he had used chromic acid crystals, and the patient was quite well when last seen, which was lately; she was operated on six months ago, and without treatment would probably have been dead by now.

He had generally found that the slough came away in about ten days; he thought the slough should be left to nature to detach, for if pulled on before it was quite loosened, troublesome hæmorrhage might result. He generally left the caustic in for three to five days; but in the present cases it was removed after twenty-four hours. He was not satisfied with the effect of carbonate of soda in counteracting the excess of chloride of zinc, and was on the look out for something else: he generally applied vaseline to the vagina first. When the carbonate of soda is introduced there is often a good deal of effervescence; this must be allowed to subside and the packing then done over again. He felt doubtful whether the peritoneum would resist the

action of the chloride of zinc; but it was a question how much of the tissue the caustic destroyed directly, probably the outlying parts underwent necrosis without being immediately attacked. He thought that even if the rectal wall were destroyed the patient was not in a worse condition than before, as regards discomfort; but if necessary colotomy could be done later, as was done in Case 2 with success, the lower part of the bowel washed out, and the parts allowed to granulate and close. The patient was at least in no worse condition than a man whose rectum was excised for cancer.

The actual cautery was, in his opinion, useless, it did not go deeply enough, not nearly so deeply as the caustic; it had been tried at the Cancer Hospital, and the results had not been very satisfactory. Moreover, after the use of the actual cautery there was not the same freedom from pain as there was after chloride of zinc, and in some cases upon the slough being detached hæmorrhage followed; in the cases he referred to there was absolutely no pain at all the day after the operation.

The following paper was then read:—

The Nerve Theory of Menstruation. By CHRISTOPHER MARTIN, M.B.Edin., F.R.C.S.Eng., Surgeon to the Birmingham and Midland Hospital for Women.

To-night I propose to submit for your consideration a number of arguments in support of the view that menstruation is a process directly governed by special nerves emanating from a special centre.

Let us first study the process from the clinical aspect.

Its Periodicity.—At the outset we are struck by the extraordinary periodicity of the process. In this country the average healthy woman, from the age of fifteen to the age of forty-eight, menstruates regularly once every twenty-eight days. The menstrual clock is, so to speak, wound up to go for thirty-three years, and strike once every lunar month. I submit that this rhythm of function must be due to rhythmical changes in a controlling nerve centre.

Periodicity in functional activity is an event familiar to the physiologist; and, in every instance known, it may be traced to a periodic emission of nerve force from a special centre. The movements of the heart and the movements of the respiration are examples which will occur to every one. If the ear of a healthy rabbit be closely observed, the central artery will be seen to undergo a periodic dilatation and contraction—each cycle occupying about twenty seconds. This rhythmic ebb and flow has been conclusively shown to be due to a periodic change in the vaso-motor centre. It has been demonstrated by Professor Roy of Cambridge that the spleen once a minute undergoes a remarkable systole and diastole, and Bulgak has shown that this “beat” of the spleen is directly controlled by a special “splenic” centre in the cord.

Is it not also reasonable to attribute the ebb and flow of the menstrual tide to a “menstrual” nerve centre?

Puberty.—The onset of menstruation is characterised not only by peculiar physical changes, the sudden development of the generative organs and the mammæ, the alteration in the girl's figure and gait, but also by an equally remarkable transformation in her psychical, emotional and mental life. The current of her thoughts is mysteriously changed. Hopes and yearnings unknown before thrill and agitate her; and life acquires a new and deeper meaning. These profound and subtle changes are not so difficult to understand if we accept the view that puberty means the sudden bursting into activity in the midst of the nervous system of a hitherto dormant centre.

The Monthly Period.—Each recurring period produces a marked disturbance in the woman's nervous system. Even in healthy women it induces a state of increased nervous instability and excitability. Lunatics and epileptics are always worse at this time. There is one well-marked form of epilepsy—menstrual epilepsy—in which the patient is the subject of seizures during the period, but not during the intervals. Moreover menstruation is too often a painful

process: the agonies of dysmenorrhœa proclaim with no uncertain voice the intimate connection of the uterus with the nervous system.

The Menstrual Wave.—Professor Stephenson has shown that menstrual life is associated with a well-marked wave of vital energy, which manifests itself in a monthly fluctuation of the temperature of the body, of the daily amount of excretion of urea, and of the rate and tension of the pulse. The wave attains its maximum during the week preceding menstruation, and slowly falls to its minimum which is reached during the week after menstruation. This wave indicates a periodic variation in the bodily metabolism, and is probably directly influenced by the rhythmical activity of the menstrual centre.

The Menopause.—Violent mental emotion will occasionally bring on an abrupt and premature cessation of the menses. A lady whom I knew intimately, and who had always menstruated normally, was at the age of thirty-five suddenly told some very bad news. She was unwell at the time, but the mental shock she received was so great that from that hour she ceased to menstruate and was never so again. In this case the violent emotional storm seems to have wrecked her menstrual centre.

The menopause—naturally or artificially induced—is nearly always a period of marked nervous disturbances. The woman suffers from heats and flushes, irregular palpitations, giddiness, profuse perspirations, nervous depression, &c.

All these phenomena point to the close connection of the menstrual functions with the central nervous system.

How are the symptoms of the Change of Life produced?

(1) I believe that they are largely due to a condition of instability and increased excitability of certain other cerebro-spinal centres directly brought about by the failure of the menstrual centre.

(2) It is probable that the ovaries, like the liver and thyroid gland, modify the blood circulating through them, and add to the blood some peculiar product of their metabolism.

It may be that some of the climacteric symptoms are due to the loss of this substance from the system.

The Nerve Supply of the Uterus.—The uterus is supplied on each side by two plexuses: (a) the ovarian plexus, (b) the utero-vaginal plexus.

The Ovarian Plexus accompanies the ovarian artery, and is derived from the aortico-renal plexus. Nerves have been traced into this plexus from the last dorsal and upper four lumbar nerves. It supplies branches to the ovary, Fallopian tube, and, after communicating in the broad ligament with the utero-vaginal plexus, ends in the uterus.

The Utero Vaginal Plexus is derived from the hypogastric plexus, into which the "pelvic splanchnics" from the second and third sacral nerves pass. The nerves destined for the uterus are directed upwards between the layers of the broad ligament, along the side of the organ, accompanying the branches of the uterine artery. They form connections in the broad ligament with the ovarian plexus. One branch, continued directly from the common hypogastric plexus, reaches the hinder surface of the body of the uterus above the rest, and a nerve from the same source ascends to the Fallopian tube. Numerous ganglia are contained in the plexus. A large one situated on the cervix has been termed the "ganglion cervicale uteri."

Dr. Arthur Johnstone describes "a large nerve trunk which runs up at a very acute angle to the body of the uterus, running in the angle between the round ligament and the Fallopian tube, from deep down in the base of the broad ligament. It enters the uterine cornu just beneath the Fallopian tube." This he believes to be the nerve of menstruation.

Nerve filaments have been traced directly into the mucous membrane of the uterus, where, according to Frankenhäuser, they end in ganglia.

The Pelvic Splanchnics.—These nerves are described by Gaskell as arising in the lumbar part of the cord in the cells of the posterior vesicular column of Clark, and being also connected with the cells of the lateral horn of grey matter.

They may be distinguished by the fineness of their fibres from other nerves. They run in the nerve roots of the second and third sacral nerves, and pass from these directly into the hypogastric plexus, without entering the chain of lateral ganglia. From this plexus they are distributed to the generative organs, and also to the bladder and rectum. They are chiefly vaso-dilator in function, that is, they transmit impulses which bring about vascular engorgement in the viscera supplied. It is probable, therefore, that they are concerned in bringing about the determination of blood to the uterus and appendages, which is such a marked feature of the menstrual process.

The Position of the Menstrual Centre.—This at present can only be surmised; but there is reason to believe that it will probably be found in the lumbar enlargement of the spinal cord. This portion of the cord is intimately associated with all the pelvic functions. It has been proved to contain, in the human being, the centres (*a*) for micturition, (*b*) for defæcation, and (*c*) for erection and ejaculation. Experiments on animals have demonstrated that it contains a centre governing the act of parturition. If it contains a parturition centre in the bitch, there is probably one also there in the woman. And if the parturition centre be found there, the menstrual centre will not be far away.

The centre is certainly not in the pelvis. There are ganglia in the substance of the uterus, ganglia in the nerve plexuses at the sides of the uterus between the layers of the broad ligament, and on the cervix is situated a large ganglionic mass, developed in connection with the utero-vaginal plexus, called the "ganglion cervicale uteri." If these ganglia have anything at all to do with menstruation, they are certainly controlled by a higher centre.

This, I think, is certainly shown by a consideration of the menstrual functions of a curious monster born a quarter of a century ago. This "unique monstrosity" is thus described by Dr. Brook Wells in the *American Journal of Obstetrics* for 1888 (p. 1265). I have slightly condensed his report:—

"It is a female, belonging to the mono-cephalic, ileadelphic class of monsters by fusion; and is the first of its kind that has ever been reported as having occurred in the human being, though several instances have been known in animals. She is now twenty years of age, well formed and single above the waist, with normal upper extremities. Below the waist the body broadens out, so that there are two navels and it bifurcates into two pelves, from which spring four lower limbs. The spinal column divides at the third lumbar vertebra. The adjoining ilia of the two pelves are fused together. There are thus two pelvic arches supporting the four legs, two pubes, two montes Veneris, two perfect sets of external and internal female generative organs, two bladders, two ani and two lower intestines. How high up the intestines remain duplicated is not known. The organs above the waist, so far as can be determined, are normal. The two outer limbs, on which the woman walks, are well developed. The inner ones are smaller, atrophied, and below the knee rudimentary. Menstruation appeared at the usual age, is normal, and *occurs simultaneously on both sides*. She married shortly after her eighteenth birthday, and a year later became pregnant in the left uterus. In consequence of the extreme narrowness of the pelvis, abortion was artificially induced when she was between three and four months pregnant. She made a rapid recovery, and is now in good health."

Notice three points: (*a*) the body was single above the third lumbar vertebra and double below; (*b*) there were two distinct independent sets of generative organs, two separate uteri; (*c*) she menstruated normally and simultaneously on both sides. Now I submit that if we accept the view that menstruation takes place in obedience to the mandates of a nerve centre, this case shows that the centre cannot be either in the substance of the uterus or in any ganglia situated in the pelvis, or the lower part of the abdomen, otherwise menstruation would not have occurred simultaneously on both sides. It is inconceivable that two independent men-

strual centres, each in its own pelvis governing its own uterus would have kept synchronous beat. There must have been a higher centre in the body above the point of bifurcation governing both uteri, and bringing about the process of menstruation in each at exactly the same time.

A similar line of reasoning will show that ovulation cannot be the cause of menstruation, for it is most improbable that Graafian follicles would rupture in different ovaries, in different pelves, month after month at the same time.

Experiments on Animals showing the influence of Nerves on the Uterus.—Menstruation is a function peculiar to the human female and the higher apes. So far as I am aware no experiments bearing on the phenomena of menstruation have as yet been performed on living apes. But numerous experiments on other animals have been recorded which are of value to us, in that they demonstrate that the contractions in the uterus and the variations in its vascular supply are directly under the control of the central nervous system.

(1) According to the reseaches of Körner, Röhrig and others, the uterus is supplied by two sets of motor nerves :

(a) Fibres derived from the abdominal splanchnics pass through the abdominal and hypogastric sympathetic plexuses to the uterus. Stimulation of these fibres causes contraction of the circular muscular fibres of the uterus. (b) Fibres leave the spinal cord by the second and third sacral nerves, and run in the pelvic splanchnics to the uterus. Stimulation of these fibres causes contraction of the longitudinal muscular fibres of the uterus.

(2) Gaskell's researches tend to show (a) that the vaso-motor fibres destined for the uterus leave the spinal cord by the anterior roots of the lower dorsal and upper lumbar nerves, pass through the rami viscerales to the lateral chain of sympathetic ganglia, where they become non-medullated. They pass through the sympathetic plexus to the uterus. (b) The vaso inhibitory fibres leave the spinal cord by the second and third sacral nerves, and pass through the pelvic splanchnics to the uterus.

(3) Active contractions of the uterus may be induced: (a) by direct stimulation of the hypogastric plexus (Frankenhauser); (b) by stimulation of the pelvic splanchnics (Von Basch and Hofmann); (c) by direct stimulation of the lumbar part of the spinal cord (Speigelberg).

(4) The uterus may be made to contract reflexly: (a) by stimulating the central end of the sciatic nerve (Von Basch and Hofmann); (b) by stimulating the central end of the brachial plexus (Schlesinger); (c) by stimulating the nipple.

(5) Körner has shown that in the bitch there is a centre for the act of parturition situated in the spinal cord opposite the first and second lumbar vertebræ.

These investigations on the lower animals demonstrate an intimate connection between the uterus and the nervous system; and, whilst they do not *prove* anything with regard to the menstruation of the human female, they harmonise with and strengthen our belief that this function of the uterus is likewise controlled by special nerves emanating from a special centre.

Menstruation a Katabolic Process.—As a contribution towards the explanation of the nerve mechanism of menstruation, let us consider Gaskell's theory of katabolic and anabolic nerves. He believes that the active tissues are supplied by two sets of nerves—(1) katabolic and (2) anabolic.

(1) A katabolic nerve stimulates the destructive metabolism which is always going on in a tissue. It brings about a liberation of energy, followed by exhaustion. Examples of this may be found in the motor nerves of muscles, the accelerator nerve of the heart, and the sympathetic nerve to the submaxillary gland.

(2) An anabolic nerve is the exact opposite of the katabolic in function. It subserves constructive metabolism, produces repair of tissue and building up. Examples of this are found in the cardiac branches of the vagus and the chorda tympani.

In the case of the uterus I believe that during the

interval between the menstrual periods the organ is under the control of anabolic nerves. It is engaged in a constructive metabolism, preparing a decidua, building a nest for the expected egg. But should impregnation not occur within a definite period the katabolic nerves assert their influence and what is called menstruation occurs. The actively growing cells of the endometrium undergo a rapid destructive metabolism, the fabric of the half-formed decidua tumbles to pieces, the turgid capillaries burst and pour out the menstrual flow, which sweeps away the useless tissue *débris*. Then the uterus comes once more under the formative power of the anabolic nerves, and the whole cycle is repeated. But should impregnation take place, the anabolic influence is augmented and continued until the close of gestation; constructive metabolism goes on uninterruptedly, and the uterus actively grows. Menstruation—being a katabolic process—is in abeyance. But at the end of the nine months of gestation, katabolic forces gain the upper hand, and parturition takes place, and then the uterus, by the process of involution (a destructive metabolism), slowly returns to its normal condition.

The artificial Arrest of Menstruation.—If the uterine appendages on one side only be removed, menstruation is not interrupted. If they be removed on both sides, the operation brings about cessation of menses in about ninety-five per cent. of the cases. This artificial menopause is accompanied by the same peculiar nervous disturbances which characterise the natural climacteric.

By what means does this Operation arrest Menstruation?

(1) It is not by bringing about the cessation of ovulation. The observations of Ritchie, Reeves Jackson, Lawson Tait, and Annie Clark, have proved beyond dispute that ovulation is not the cause of menstruation. Ovulation may and does take place independent of and in the absence of menstruation, and menstruation may continue regularly and profusely after the complete removal of both ovaries. At the same time, I do not assert that the ovaries have no influence at all on the

uterus. It is possible that they may influence the uterus reflexly—through the menstrual centre—the afferent nerves running in the ovarian plexus. I have already hinted that it is probable that the ovaries add to the blood circulating through them some peculiar product of their metabolism, and that it is to the loss of this substance from the blood that some of the symptoms of the menopause are due.

(2) Mr. Lawson Tait has advanced the view that the Fallopian tubes are the "starting points of the process" of menstruation. "If the tubes," says Mr. Tait, "are the starting points of the menstrual phenomena, it is not unreasonable to suppose that their removal will be a very effectual method of stopping it altogether, just as you stop the growth of a fir tree by cutting off its leader. But I never said I never believed that the tubes *caused* menstruation any more than the governors of a steam engine can be supposed to drive the machinery."

Against Mr. Tait's view it may be urged that cases occur where even after the most complete removal of both Fallopian tubes menstruation continues.

(3) Other surgeons believe that the operation acts by interfering with the arterial supply of the uterus. Professor Japp Sinclair (in the *British Medical Journal* for May 27, 1893), goes so far as to assert: "If the (ovarian) arteries are tied, even though the tubes and part of the ovaries be left, involution will follow in the body of the uterus, and menstruation will cease. If the arteries be not tied, there will be profuse metrostaxis, and menstruation will continue, it may be for many months or years, even when the ovaries and tubes have been carefully removed." "In operating on the broad ligament for the purpose of bringing on the menopause, the operator should endeavour to tie the chief branches of the ovarian artery."

I do not deny that the partial cutting off of the blood supply of the uterus is a factor—but it is by no means the chief factor—in arresting menstruation. It must not be forgotten that the chief blood supply of the uterus comes through

the uterine arteries, and these are not interfered with by the operation. Moreover it is common surgical experience that when some only of the arteries supplying a vascular area are ligatured, the other vessels speedily undergo a compensatory hypertrophy, and soon the tissue is as freely supplied with blood as before. Why should the uterus be an exception to the rule?

It must be also remembered that any ligature which includes the ovarian artery will include the ovarian plexus of nerves.

(4) Is it not more probable that the operation brings about the arrest of menstruation by severing the nerves governing the process? It must be remembered that in performing the operation the whole of the broad ligaments is not included in the ligature. Therefore, if the result is obtained by a division of the menstrual nerves, these nerves must course to the uterus in the upper half of the broad ligament. It may be that the impulses are transmitted along Johnstone's nerve, though I doubt if this be as constant a structure as he would have us believe. It is probable that the ovarian plexus contains some of the fibres governing menstruation.

The failures,—the exceptional cases where after complete removal of both sets of appendages menstruation continues unabated—are probably due to the fact that on one or other side the nerves take an unusually deep course in the broad ligament, and so escape. Many surgeons explain these cases by supposing that a portion of one ovary must have been left, and that the failure of the operation to check the menstrual loss is due to the malignant influence of this unfortunate scrap of tissue. But it must not be forgotten that in those very cases where the operator cannot remove the whole of the ovary, he is also unable to include very much of the broad ligament in his ligature, and so the nerves escape.

After the removal of the uterine appendages, after ovariectomy, and more rarely after hysterectomy for myoma, a pseudo-menstrual discharge sets in. This metrostaxis begins

usually on the second or third day after the operation, and lasts from three to five days. It is rarely attended with pain. The discharge resembles that of ordinary menstruation. I have never seen it occur in women who have undergone ovariectomy after the menopause. It may be observed in about ninety per cent. of all cases of removal of the uterine appendages, in about sixty per cent. of all ovariectomies, and in a still smaller percentage of cases of hysterectomy for myoma. The interval that elapses between the previous period and the date of the operation has little or no influence on the character or duration of this metrostaxis. I regard the occurrence of this discharge as confirmatory evidence of the nerve theory of menstruation. It is, I believe, due to the mechanical stimulation of the end of the divided menstrual nerve by the traumatism of the operation. A series of impulses are thus propagated along the nerve to the uterus, and a pseudo-menstrual flow results.

Conclusion.—In conclusion, let me briefly summarise the nerve theory of menstruation. There is reason to believe:—

(1) That menstruation is a process directly controlled by a special nerve centre;

(2) That this centre is situated in the lumbar part of the spinal cord;

(3) That the changes in the uterine mucosa during the period are brought about by katabolic nerves, and during the interval by anabolic nerves;

(4) That the menstrual impulses reach the uterus either through the pelvic splanchnics or the ovarian plexus—possibly both;

(5) That removal of the uterine appendages arrests menstruation by severing the menstrual nerves.

Dr. POPE said it was always useful to be brought back to first principles. It was an elementary fact that all the processes of the body were under nervous influence, and he saw no reason why menstruation should be an exception. He thought Dr. Martin's views were highly reasonable. He suggested that oophorectomy caused physiological shock, and that this might be the way in which it arrested menstruation

Dr. MARTIN replied that he thought Dr. Pope's suggestion would not hold, because, in the first place, other operations producing great shock, did not arrest menstruation; and, secondly, the effect, if due to shock, ought to pass off. He thanked the Society for their attentive reception of his paper.

Report of Pathological Committee on Mr. Spanton's Specimen.

This consists of tube, ovarian tissue, and portion of broad ligament, forming a largish cystic cavity. As a morbid specimen it was difficult on superficial examination to determine if this was due to ectopic gestation or to tubo-ovarian disease. On further examination it proved to be a tubal gestation sac, with probable cystic disease of ovary, rupture having occurred near the fimbriated end, and downwards, partly into the broad ligament, partly into the cyst connected with the ovary, a portion of which organ is seen on the outer surface of the sac, and projecting into its inner surface. The tube at first sight is apparently intact, giving rise to the supposition of ovarian or tubo-ovarian gestation, but on further examination the true fimbriated extremity is seen in the organising blood-clot which forms a portion of the wall of the gestation sac, and thus leading to the probability of rupture of the tube having occurred to its inner side, though the actual seat of rupture cannot be found.

Microscopic sections of the sac wall taken from this neighbourhood show cell structures which, we are of opinion, are decidual, though no true chorionic villi are made out. The presence of these cells, together with remains of fimbriæ, differentiate this gestation sac from tubo-ovarian disease. The gestation sac consists of tube, broad ligament, ovarian tissue, and a cyst-wall, which is connected with the ovary, and which, we would suggest, existed before tubal gestation and rupture. In our opinion it is clear tubal rupture occurred primarily into the broad ligament; and probably into the cyst

connected with the ovary, which cyst may possibly have been a broad ligament¹ cyst independent of ovary. We do not consider that tubal abortion had occurred, or that ovarian or tubo-ovarian gestation² was present.³

(Signed) J. A. SHAW-MACKENZIE.
ARTHUR E. GILES.
W. D. SPANTON.

The Society then adjourned.

¹ To me it appeared distinctly a part of the ovary.—W. D. S.

² This is not quite in accordance with the fact of a gestation sac in an ovarian cyst, *which ever way it may have entered*.—W. D. S.

³ We admit the secondary sac was partly and probably ovarian, but consider gestation and primary rupture was tubal.—J.A.S.M.

OBITUARY.

ARTHUR WELLESLEY EDIS, M.D.LOND., F.R.C.P.

AS we go to press we learn, with the deepest regret which will be shared by all the Fellows of this Society, the death of our late much respected President. The following appreciative notice of his life and work appeared in the *British Medical Journal*:—

The news of the early death of Dr. Arthur Edis will be received with universal regret, while to those who enjoyed the privilege of his personal friendship it will long be a source of profound pain. Few men have passed through an active professional career in the metropolis more unspotted in purity and tenderness of character or unsullied with the dust and strife of the struggle for success. His was a sweet and gentle nature. An almost feminine softness of heart expressed itself in the delicacy of mien and sweetness of manner, having a charm to which few were insensible. To this characteristic bearing and unchangeable kindness and tenderness of thought and act his success in life was due even more than to arduous study and carefully garnered clinical experience. His friendships in the profession were deep and sincere, and rather concentrated among those with whom he was in close sympathy than spread over a wide surface, but it is especially among his patients, whose affection and gratitude he won, that the best memories of him and his character will endure.

Dr. Edis was born in Huntingdonshire in 1840, of an old yeoman family, and after a preliminary education in the Grammar Schools of Huntingdon and Aldenham, he pursued a course of instruction in agriculture and in veterinary medicine at the Cirencester College, winning honours in veterinary surgery. Thence he passed on to Westminster Hospital. He took the Membership of the Royal College of Surgeons of England in 1862, and became a Member of the Royal College of Physicians in 1867, and M.D. of the London University in 1868. He spent some time in the schools of

Vienna, Berlin, and Paris, acquiring a knowledge, not only of the medical teachings of these schools but also of the languages of the country.

He was in Sedan immediately after the battle, and rendered good service in the ambulance work. In company with his brother, Colonel Edis, the eminent architect, he entered Paris during the last week of the Commune, where he took a great interest in the ambulance work. He was elected a Fellow of the Royal College of Physicians in 1879. Before finally settling to work as a specialist in diseases of women, he had applied himself to the study of insanity, and was resident medical superintendent at Ticehurst, where the connection between uterine disease and mental disease closely attracted his attention. For five years he was assistant physician to the Hospital for Women, Soho Square, subsequently taking the post of assistant obstetric physician to the Middlesex Hospital, and eventually succeeded Dr. Hall Davis as physician and lecturer on diseases of women.

Dr. Edis was, at the time of his death, senior physician to the Chelsea Hospital for Women, and held also other public offices. He was past president of the British Gynæcological Society, and honorary corresponding Fellow of many foreign obstetrical and gynæcological societies. His writings included the well-known *Manual of Diseases of Women*, and *Sterility in Women*. He was a frequent contributor to our columns, and occasionally as a reviewer and in editorial capacity.

He took a great interest in the question of providing seats for shopwomen, and published a pamphlet, *Seats for Shopwomen*, which had a great influence in calling public attention to the dangers to health due to the prolonged hours during which young women were required to remain standing in shops.

Dr. Edis married a sister of the late Dr. John Murray, for many years the much beloved, and still unforgotten, sub-editor of the *British Medical Journal*; the interest which he thus learned to take in the affairs of the *Journal* of the Association was never lost.

REVIEWS, &c.

AN interesting and instructive paper, founded upon "A Case of Scarlet Fever in Pregnancy, with Infection of the Fœtus," by Drs. J. W. Ballantyne and David Milligan, was read before the Edinburgh Obstetrical Society last March, and was published in the *Edinburgh Medical Journal* for July.

"Mrs. S., a woman of between 20 and 21 years of age, was pregnant for the first time. She expected her confinement on or about April 21, 1893, and during the early part of her pregnancy she enjoyed good health. She had never had scarlet fever. During January and the early part of February, however, she was exposed to the contagion of scarlatina, and on February 7 she complained of slight sore throat. On February 8, Dr. D. Milligan, who had been engaged to attend her at her confinement, was called to see her. He found her suffering from a sore throat, which was typically scarlatinal in character. There was an indefinite red rash over the chest and root of the neck; there was a characteristic scarlet fever tongue, and the temperature was 103° F. The provisional diagnosis of scarlatina was made, and salicylate of soda was given, but was almost immediately stopped on account of the headache caused, and quinine was substituted for it. On the morning of February 9, the temperature was 101.2°; the throat was still bad; the rash was now quite distinct, although not copious, and affected chiefly the chest and limbs, and the patient complained of obscure pains in the lower part of the abdomen. No vaginal examination was at this time made, as she had had a dose of cascara, and the abdominal pains were ascribed to its action.

On February 10, at 4 a.m., Dr. Milligan was sent for, and he found on his arrival that labour had set in. The early stages were normal, but when the head reached the perineum delay occurred from weakness of the pains. Some ergot was given, but this having no effect, short forceps were applied, and the head was easily shelled out. There was no tear of the perineum, and gentle pressure served to expel the placenta, but there was considerable hæmorrhage, both at the time of its expulsion and immediately afterwards. The bleeding was easily stopped by compression of the uterus, and there was no need for the hot douche that was being prepared. On the day after the confinement (February 11) the mother's temperature was 101.8°, and her pulse 120. The lochial discharge was small in amount, but had no bad smell.

"On February 12, Dr. Ballantyne saw the case in consultation. The rash was still visible on the trunk and limbs, but was beginning to fade; the tongue was cleaning at the edges and tip, and the redness was disappearing on one side of the throat. The diagnosis of scarlatina was fully confirmed, and a guarded, but not hopeless, prognosis was given. The patient's husband was particularly anxious about her, for his first wife had died in childbed with her first child. The maternal temperature and pulse were as follows:—

	Temperature : Morning.	Temperature : Evening.	Pulse.
Feb. 8	103° F.		120
" 9	101.2°		120
" 10	not taken (labour)		120
" 11	101.8°		120
" 12	101.8°	102.8° F.	118
" 13	102.4°	102.6°	112
" 14	102.2°	101.2°	112
" 15	100.2°		100
" 16	102.4°		100
" 17	100.2°		90
" 18	99.8°		88

	Temperature :	Pulse.
	Morning.	
Feb. 19	99.8°	90
„ 20	99.0°	85
„ 21	98.4°	72

“There was thus a gradual fall in the temperature, broken only by a slight rise on the sixth day of the puerperium, which was probably due to the commencement of the mammary secretion, and a steady slowing of the pulse-rate. On February 12, castor oil was given, and the bowels moved four times on that day, and thrice on the succeeding day; a dose of liquorice powder was necessary on February 24. The urine was not examined, as it could not be obtained free from lochial discharge without the use of the catheter, and it was thought safest not to employ that means. The lochial discharge remained sweet throughout, so the anti-septic douche was not used. Desquamation began on February 16, the ninth day after the sore throat began, and the sixth day after the confinement. It pursued the usual course, and was specially marked on the hands. Dr. Ballantyne saw the patient again on February 28, when the desquamation was still going on. She is now convalescent.

“Whilst scarlatiniform rashes in the puerperium have been comparatively often noted, cases of true scarlet fever in pregnancy are uncommon occurrences. In this instance, as in most of those recorded by other observers, the appearance of the rash was soon followed by premature labour. The maternal mortality has been high in cases of scarlet fever in pregnancy, but in our case recovery took place.

“Let us now turn to the condition of the infant. When born, the child, a female, showed all the signs of immaturity; it was small in size, and its nails were imperfectly developed. It was, however, born alive, and cried, although feebly. It was covered with a thick layer of vernix caseosa, and as there was no lard or fat in the house with which to remove this covering (through the premature occurrence of labour the necessary preparations for the confinement had not been made), the condition of the underlying skin was not ascertained on the day of birth. On the next day, however

(February 11), the nurse drew Dr. Milligan's attention to what she described as an unusually marked eruption of the "red gum." She also told him that the infant could not swallow, and for the first few days of life the child only took a few drops of milk, and that with very evident suffering. The skin was hot to the touch.

"On February 12, Dr. Ballantyne saw the infant. It moaned at intervals, and was restless. The skin was red all over the body, but especially on the shoulders and thighs, and the redness was unlike the physiological erythema of the new-born. On drawing the finger along the skin over the shoulders a transient white line was left. There was some swelling of the glands at the angle of the jaw, and the interior of the mouth was redder and drier than is normal in the new-born infant. The tongue was bright red in colour, but had no white coating; the absence of the white covering may have been due to the fact that the infant was taking no food. The skin was somewhat hot to the touch. An attempt was made to take the temperature, but on introducing the thermometer into the rectum it evidently became embedded in meconium, for the index would not rise. The child would not allow the thermometer to remain in the mouth. During the next few days its condition improved; it slept almost continuously, like all immature infants; it moaned less, and took a few drops of milk without signs of suffering. The cord separated naturally in about a week. Desquamation of the cuticle began about the same date as in the mother, and when Dr. Ballantyne again saw the child (February 28), large flakes were separating from the hands, and finer scales from other parts of the body.

"FETAL SCARLATINA.

"Scarlatina affecting the unborn infant is a condition that has been seldom recorded, and some writers (*e.g.*, W. C. Roberts¹ and Parvin²) have gone so far as to say that it has

¹ Roberts, W. C., *Amer. Journ of the Med. Sciences*, vol. xxvi., p. 371, 1839.

² Parvin, T., *Amer. Med. Assoc. Journal*, April 12, 1884.

never been met with ; but we have been able to collect together fourteen cases in which the diagnosis of foetal scarlet fever seems to have been well founded, and three others (Nos. 1, 4, and 9) in which it was somewhat doubtful. It is easy to understand how observers have found it difficult to make sure of the existence of this fever in the new-born infant, for several of its distinctive characters are normally present in the child at or soon after birth. Thus, there is a normal redness of the skin, popularly known as the red gum ; when this passes off, it is succeeded by exfoliation of the cuticle ; and, again, the interior of the mouth in the new-born infant is usually redder and more dry than in older children. Further, the cutaneous redness and the epidermal exfoliation are always specially marked in infants born prematurely, and these facts make the diagnosis of foetal scarlatina still more difficult, for many of the infants in which this fever was thought to be present have been immature. Nevertheless, a study of the clinical records of many of the recorded cases warrants the belief that they were really examples of foetal scarlatina, as will be shown immediately.

“ *Historical Notes.* — According to L. Thomas, Baillou (Ballonius) was the first to note the existence of foetal scarlet fever ; but the passage referred to does not seem to make this clear. The quotation is as follows : ‘ Uxor Bodini septimestrem partum excussit vi morbi, eodem modo maculatum (erat enim febris cum rubeolis) quo et mater.’¹ Thomas goes on to refer to cases reported by Ferrario, Tourtual, Gregory, Stiebel and Hüter, which seem to have been true instances of intra-uterine scarlatina ; and he notes also the observations of Asmus and Meynet, in which some doubt as to the diagnosis exists. The instances put on record by Williams, Leale, Dwyer, Thorburn, Saffin, Holsburg, Dorsett, and Cordes may be enumerated as genuine examples of scarlet fever acquired by the foetus in utero.

¹ *Vide Schurig's Embryologia historico-medica*, p. 192, 1732.

"Clinical Details : (1) Maternal.—In most of the cases of foetal scarlatina the mother was also affected at the same time ; but in Nos. 3 and 17 it would appear that she escaped. It is probable that in most instances the mother had never before suffered from the exanthem ; but Nos. 10 and 14 were exceptional in this respect, for in them the mother had had scarlet fever previously, and took it a second time when pregnant. The mothers were usually multiparous (Nos. 3, 4, 8, 9, 10, 11, and 14), but in our case she was a primipara. A distinct source of infection was nearly always traced, and with regard to the multiparous women this was generally found in the occurrence of scarlet fever in some of the older children (*e.g.*, Nos. 3, 4, 8, 9, 10, and 14). In two cases (Nos. 3 and 9) the woman had nursed her husband as well as her children through attacks of scarlet fever. In other instances (Nos. 11 and 18) the infection was brought into the house by a visitor or caught by the mother when visiting in an infected house ; whilst in No. 5 the disease was epidemic at the time, and in No. 6 puerperal fever was raging.

"It is a noteworthy fact that in all the cases the mother was well advanced in pregnancy when she was attacked with scarlatina, and in consequence of this most of the infants were born at the full term, or nearly so (Nos. 3, 4, 6, 7, 9, 10, 11, 14, and 17). In Nos. 1 and 8, however, the child was born at the seventh month, and in our own case (No. 18) the pregnancy, according to the patient's reckoning, had not quite reached that date. The confinement seems usually to have occurred soon after the appearance of the rash (Nos. 7, 8, 11, 14, and 18), but in some instances delivery did not take place for a week or two (Nos. 3 and 10). In the last-mentioned cases the child was born with desquamation going on. The history in No. 13 was interesting, as the mother was exposed to the contagion about a fortnight before delivery, and took the fever about a fortnight afterwards, so that the author (Thornburn) says :—'I can hardly resist the conclusion that the foetus received the poison and suffered its primary effects whilst yet unborn, the mother being then

insusceptible, and that she afterwards, owing to the puerperal weakness, became susceptible, and was infected by her own offspring.'

"In three out of the eighteen cases (Nos. 6, 11, and 12) it is definitely stated that the mother died, in seven (Nos. 3, 8, 10, 13, 14, 17, and 18) her recovery is noted, and it may be taken for granted that in the remaining eight the issue was also favourable. In No. 6 death occurred four days after delivery from metrophlebitis; in No. 11 the fever was grave in type from the first, and the patient was delirious during labour; her condition improved during the first twenty-four hours after delivery, but, thereafter, the temperature rose, the rash became purple, and death occurred on the third day of the puerperium; and in No. 12 the mother died in an eclamptic seizure at the moment of delivery.

"(2) *Infantile*.—In all the cases recorded it would appear that the infant was born alive—in fact, it is necessary for diagnostic purposes that the child be living; a dead born foetus may or may not have had scarlatina—it is impossible to tell. In three instances (Nos. 5, 8, and 10) the infant died—in the first, on the eighth day of life, in the second on the second day, and in the third at the end of a month (from erysipelas and abscesses). It is probable that in all the other cases the child lived; it is definitely stated that such was the result in Nos. 3, 4, 9, 11, 13, 14, and 18. Most of the infants were born in the eruptive stage of scarlatina; thus the rash was visible in Nos. 1, 2, 3, 6, 7, 8, 9, 11, 12, 14, 17, and 18 but in Nos. 4, 10, and 13 desquamation was going on at the time of birth, and on this account the diagnosis must remain doubtful in these cases, although it is noteworthy that in No. 13 suppuration of the cervical glands and albuminuria followed the exfoliation of the cuticle. In No. 5 there was neither rash nor desquamation, and the author (Asmus) founded his diagnosis of scarlatina upon the following facts:—Scarlet fever was epidemic at the time; the infant was evidently suffering from some kind of fever, and there was marked angina maligna. In several cases in which the

eruption was present at birth the stage of desquamation was reached at a later date—on the ninth day in No. 3, on the tenth in No. 11, on the fifth in No. 14, and on the sixth day of life in No. 18. In No. 9 it is distinctly stated that the eruption was not followed by desquamation—a fact which caused Thomas to doubt the diagnosis; on the other hand, there were noted fever, sore throat, and difficulty in swallowing, circumstances which supported its accuracy. In several of the cases (Nos. 3, 7, 9, 11, and 18) difficulty in deglutition was a symptom early noticed; in others (Nos. 9, 11, 14, and 18) the feverish state was observed; and in yet others (Nos. 5, 9, 11, 17, and 18) sore throat was recorded. In Leale's case (No. 11), which is one of the best reported, the existence of congenital scarlatina was abundantly proved; there was the characteristic rash, followed by desquamation, the difficulty in swallowing, the typical sore throat and tongue, the rise in temperature, and later there followed nephritis and dropsy.

"When a pregnant woman takes scarlet fever, the foetus in utero is not always affected; thus, Louis Thomas reports three cases in which the children escaped (two from Murchison and one from Elsässer), and the same thing has been occasionally noted by other observers. It would be interesting in such cases to discover whether the child that was immune in utero and at birth remained so in after life.

"General Conclusions.

"(1) When scarlatina occurs in pregnancy the foetus in utero is usually, but not invariably affected.

"(2) It would seem that the infection of mother and foetus is practically simultaneous, for the infant at birth shows the fever in the same stage as that reached in the mother, and desquamation usually occurs at the same time in both.

"*Note.*—Dr. Ballantyne has come to the same conclusion with regard to foetal measles (*vide* paper in *Archives of Pediatrics*, April, 1893).

"(3) The clinical features of scarlatina in the foetus and new-born are the same as in later life, but the diagnosis is rendered difficult by the resemblance these symptoms bear to the normal conditions (erythema, desquamation, &c.) met with in the neo-natal state.

"(4) The prognosis as regards both mother and foetus is grave, but death does not invariably occur. The supervention of septicæmia is the greatest danger, and the chief treatment should be its prevention."

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IN VIEW of the effects attributed to the passage of electric currents through various tissues and organs of the human body, the following important article is well worthy of reproduction here.

*Some Physiological Experiments with Magnets at the Edison Laboratory.*¹ BY FREDERICK PETERSON, M.D., Chief of Clinic, Nervous Department, Vanderbilt Clinic, College of Physicians and Surgeons, New York; and A. E. KENNELLY, Chief Electrician, Edison Laboratory, Orange, N.J., Vice-President American Institute of Electrical Engineers.

MAGNETO-THERAPY has not gained such widespread application as has electricity in medicine, nor has it won to any great extent the confidence of the medical profession, for its effects are even more occult and less easily demonstrable than, for instance, the trophic influences of galvanism in poliomyelitis and progressive muscular atrophy. At the same time, magneto-therapy has its adherents and earnest promulgators, to which anyone will bear witness who has observed the transfer of singultus by a magnet from one girl to another in Charcot's dramatic realms at the Salpêtrière, or who has at the Poliklinik watched Benedikt carefully adjust a one-foot horseshoe magnet to the hyperæsthetic spine of a hysterical girl. There are many lesser men than these who have implicit faith in that mysterious force, and there is no dearth of theories to explain the effects of magnetism upon the human organism. Professor Benedikt has taught that erethetic forms of hysteria are better treated by the magnet than by electricity, hydro-therapy, or drugs. A magnet being applied to the sensitive vertebræ, without removal of the dress, the irritable patient soon becomes quiet

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and even quasi-paralysed. The magnet, therefore, "increases the resistance to conduction in the motor nerves." The muscles gradually relax, the respiration becomes sighing, consciousness slowly disappears; the resistance to conduction in motor nerves "could easily become absolute." The two poles have different effects. Sometimes one pole to a hyperæsthetic ovary fails to relieve pain, whereas a change of the poles causes its speedy disappearance. According to him the magnet must be employed with due caution, since patients may be injured by it.

The status of magneto-therapy in America may be inferred from some quotations from the third edition of Robert Bartholow's *Medical Electricity*, 1887. Under the heading of "Physiological Effects of Magnetical Applications" he says, "We know that a current circulates in a magnet. If a powerful horseshoe magnet is brought near to the skin, opposite electricities are attracted to the poles, and currents are induced. About the point of application, therefore, the skin will be acted on directly by the magnetic current and by an induced current. The production of physiological effects, which can be recognised, is therefore merely a question of the magnetic strength."

He then quotes Dr. Vansant as assuming the body to be diamagnetic. "By applying north and south polarity to different parts, very extensive subjective impressions are experienced; they are of two classes—of heightened organic activity, and the opposite condition."

He then adds, "That impressions of a very decided kind are produced by the application of strong magnets is evident in the experience of Dr. Proust and Dr. Ballet, who continued a course of investigation begun by Charcot at Salpêtrière." They ascertained that magnets could not be applied with impunity, for, if applications were prolonged, pains were felt in the epigastrium and thorax, making respiration painful, digestion was disordered, and boulimia brought on. These results were so uniform that there seemed to be no doubt of their genuineness in the minds of the investigators.

Under the heading "Therapeutical Application of Magnets," Dr. Bartholow quotes Dr. Hammond as preferring a horseshoe magnet, and advising that several of the same size be kept, so that by clamping them together more power can be obtained. The author adds, "Hammond insists on the necessity for the application of both poles in many cases, and therefore uses the horseshoe magnet."

"Hammond has used magnets in nine cases of chorea, in two 'complete cures being produced in a few minutes.'"

"In two cases of hemiplegia with hemianæsthesia Hammond had very surprising results from the application of horseshoe magnets, the sensibility returning immediately, and in one the hemiplegia was recovered from in a few hours."

The magnets used by physicians are generally those of a horseshoe shape, varying from a few inches to a foot in length, and are the so-called permanent magnets. They exert a traction force equivalent to several ounces, and sometimes to from one to three or four pounds.

Electro-magnets can be made to sustain two hundred pounds to each square inch, or fourteen kilogrammes to the square centimetre of active surface on either pole—that is to say, twenty-eight kilogrammes to the square of active surface on either pole if both poles are alike and share the load.

While rather sceptical as to the practical utility of the magnet in medicine, it occurred to us that if there was any truth whatever in the claims made by various distinguished authorities, if this interesting and undoubtedly powerful force had any effect at all upon living organic matter, we were in a position to demonstrate its physiological effects by means of magnets of enormous power, placed at our disposal at the Edison Laboratory at Orange, N.J., through the kindness of Mr. Edison. Accordingly we made experiments which we detail below, and which we consider as conclusive, in that they have been made with magnets of a strength possibly never before used for such purposes. The description of the magnet employed for preliminary experiments is as follows:—

It is of wrought iron throughout, and its principal dimen-

sions are represented in the sketch in centimetres. Roughly speaking, it is about a foot and a half wide by two feet long, and requires two men to lift it. The cross section of the core is forty-nine square centimetres. The vertical angle of the cones is 36° , and the diameter of their plane faces 0.75 centimetres. There are 2,728 turns of wire on each limb, making 5,456 in all, and the current employed in exciting it was approximately 4.5 amperes. The pole faces were 1.20 centimetres apart, and it was between them that objects were placed for observation either with the naked eye or with the microscope. The intensity of the magnetic field between these poles was about 5,000 C.G.S. lines to the square centimetre.¹

A drop of water placed on a glass slide in this field was visibly distorted in shape by the magnetic force.

The stage of the microscope was removed and wooden supports substituted. It was necessary to clamp the microscope down to the table to prevent its being drawn upward to the poles.

Nothing peculiar was noted in the effect upon iron in its finest powdered form, iron by hydrogen. It behaved just as iron filings would do, being strongly attracted. Iron by hydrogen placed in water was observed to be polarised by any ordinary magnet under the microscope.

Dry powdered hæmoglobin exposed to the strong magnetic field above described was not visibly affected by it. The proportion of iron it contains, however, is exceedingly minute (0.42 per cent.).

It was then thought possible that the iron in loose combination with fresh hæmoglobin in the blood-corpuscles might be affected. Several experiments were made with both human and frog's blood. The blood, placed on slides

¹ C.G.S., or "centimetre-gramme-second," is the unit of measurement employed. The earth's magnetic field, measured horizontally for instance, is estimated to be 0.18 C.G.S. line to the square centimetre near New York. Consequently our magnetic field was 27,778 times that of the earth's horizontal component, that aligns the compass needle.

and covered with a cover-glass, was subjected to the strongest magnetic influence obtainable, and failed to show the feeblest traces of polarisation, movement, or vibration.

It must be borne in mind that we were using an electro-magnet which we magnetised and demagnetised at will. First one would make the observations, the other experimenter attending to the current ; then they were repeated and verified by the other on our changing places.

Living ciliated epithelium from the pharynx of a frog was now in like manner subjected to the magnet, and its behaviour watched under the microscope with a high-power objective, as the poles were magnetised and demagnetised by the making and breaking of the 120-volt current in the huge coils. The magnet had absolutely no effect upon the delicate ciliary movement which kept on continuously, nor did it cause the slightest change or vibration in the cells themselves, suspended in the saline solution. After the magnetic observation, a mild continuous electric current of one to two milliamperes C.S. was carried through the microscopic field containing the moving ciliated cells, and this also had no effect whatever upon the movement.

Another frog was now taken and curarised, fastened upon a pasteboard frog-plate, and the web of the foot stretched in the usual manner to show the circulation of the blood in the capillaries under high power. As before, the object to be observed was placed between the poles of our magnet and the microscope focussed upon it. The poles had to be separated somewhat farther to admit the large foot of the frog. With the clearance thus employed to allow of inserting the frog's foot, the magnetic intensity was reduced from 5,000 C.G.S. lines to the square centimetre to 1,500 C.G.S. lines to the square centimetre. Repeated observations by both of us failed to demonstrate the feeblest influence of the magnet upon the blood-cells or their movements in the vessels. At this point we determined to note the effect of the continuous current upon the circulation. A fine copper wire was placed upon one toe and another wrapped in

moistened filtering paper above the ankle. The current strength in these trials never exceeded two milliamperes, and generally varied between one and two milliamperes.

Whenever the current was made the circulation in the foot under the microscope, which was about midway between the two electrodes (three centimetres apart), gradually grew sluggish and finally ceased, complete stasis being produced, the blood-vessels dilating. As soon as the current was cut off, gradually movement made itself manifest in the stagnant capillaries, and, becoming more and more lively, the circulation was in a few moments restored to its normal state. The effect was not due to the magnet, however, for it was observed with the current in the coils made or broken. This experiment was gone over frequently by each of us, so that the facts were fully verified.

It was now resolved to put Benedikt's statement to proof that magnetism "increases the resistance to conduction in motor nerves," thus causing paralysis. For this purpose a set of idle field magnets which converge into a cylinder two feet in diameter and seven inches deep was employed. In this cylinder a small and lively young dog was placed and kept for five hours, and subjected during all that time to the influence of a magnetic field whose intensity was from 1,000 to 2,000 C.G.S. lines to the square centimetre. A boy could easily sit inside of the cavity, in which the dog was kept for five hours. The magnets were excited while the photograph was being taken with the boy in it, as is evidenced by the position of the bolt above, and by the bar of iron, which not only supports its own weight in this horizontal position when touching the pole-piece, but also supports the wrench at its outer extremity. The chain, too, is magnetically influenced. There was no effect upon the boy. A clearer idea of the power of this magnet may be obtained when I say that heavy bolts, chisels, and pieces of iron in the immediate neighbourhood of this cylinder were drawn to it irresistibly, and that it required considerable muscular exertion to remove them. A heavy bolt placed slightly above

the centre or axis of the cylinder remained suspended for a moment in the air, like Mohammed's coffin, so powerful were the opposing magnetic forces upon it compared with gravitation.

The five hours' exposure to this influence had not the slightest visible effect upon the animal, which was rather livelier in its capers on being set free than before, owing to its joy at being liberated from the cage.

Our next experiments were directed to studying the influence of magnetic fields on the human brain. The type of dynamo employed for this purpose converts about 70 h.p. at full load. The armature and one journal were removed, leaving the space between the pole-pieces free, between which the head was to be inserted. This cavity is 35 centimetres (fourteen inches) in diameter, and 60 centimetres deep. The weight of this electro-magnet is over 5,000 pounds, and the intensity of the magnetic field produced within the polar cavity after removal of the armature, though not uniform, may be estimated at a mean of 2,500 C.G.S. lines to the square centimetre. A long board was placed upon the base plate leading into this polar cavity, and the subject experimented upon lay on his back upon the board with his head and shoulders in the cavity between the poles, and exposed thus to the full influence of the magnetic field. There would be comparatively feeble residual magnetism with no current in the coils. A switch so nearly silent in action as to be inaudible to the subject was arranged to close and open the exciting current circuit through the field coils. On closing the switch nearly the full magnetic intensity would be active and permeating the head within practically one second (theoretically it takes an indefinitely long time to establish the full current and magnetism). Similarly on opening the switch, almost the whole intensity would disappear in about one second.

Five men, ourselves among the number, were subjected to trial. One case described will describe all.

The subject lay back upon the board and concentrated

his attention upon his sensations. His right wrist was extended and was grasped by one observer, who took sphygmographic tracings of the pulse. A second observer placed a hand on his chest to observe any irregularity that might occur in respiration. A third observer, in view of these two but unseen by the subject of the experiment, opened and closed the switch that excited and relaxed the field, signalling to the first two observers as he did so. The strong magnetic influence was therefore turned on or off at will, and without the knowledge of the subject. Several sphygmographic tracings were taken in each of our subjects, and in one the knee-jerk was tested continuously.

The sphygmographic tracings taken continuously during the *séance* show no change in regularity, in spite of the making and breaking of the enormous magnetic influence during its registration. The respirations were not changed in the least. The knee-jerk also presented absolutely no change. As to common sensations, there were none that could be attributed to the magnetic influence, and the subject could not discover when or whether the field had been excited. The testimony of all five subjects was alike. In one experiment the subject held a steel screw in his mouth, and was then able to tell when the poles were magnetised or demagnetised, but only by the pulling of the screw to one side or another, not by any peculiar sensation or taste.

Our last series of experiments was in connection with reversed magnetism.

A large coil of stout, cotton-covered copper wire, about 30 centimetres high and 25 centimetres internal diameter, composed of nearly 2,000 turns and weighing about 70 kilogrammes, was supported horizontally in such a manner that the head of the subject experimented upon could be freely introduced within the coil, and subjected to the electromagnetic field created there by passing a current through the wire. The resistance of the coil was 10 ohms, and its inductance 0.73 henry. An alternating electro-motive force of 1,200 volts, making 140 cycles or 280 alternations to the

second, was connected with this coil, the current supplied being 1.85 amperes. The magnetic field in the coil would thus be reversed 280 times to the second. Each of the authors acted as subjects in the experiments, permitting the 1,200-volt alternating current to be made and broken frequently in the huge magnetic coil surrounding his head. No effect whatever was experienced. The coil itself hummed with the current, and a strip of sheet iron held in the cavity of the coil, but not touching it, vibrated perceptibly in the hand and gave a distinct, loud sound, which was determined to be middle C of the musical scale by means of Helmholtz resonators.

The authors conclude that the human organism is in no wise appreciably affected by the most powerful magnets known to modern science; that neither direct nor reversed magnetism exerts any perceptible influence upon the iron contained in the blood, upon the circulation, upon ciliary or protoplasmic movements, upon sensory or motor nerves, or upon the brain.

While our observations with reversed magnetism indicate that no appreciable influence is exerted upon the brain when subjected to 280 magnetic reversals to the second, we were unable to experimentally alter this frequency, and the possibility remains that some particular frequency or frequencies might affect the nervous system. We hope to decide this question, within a suitable range of frequency, at some future time.

The ordinary magnets used in medicine have a purely suggestive or psychic effect, and would in all probability be quite as useful if made of wood.

While we have demonstrated conclusively the above facts, we do not deny the possibility of there being invented some-day magnets enormously more powerful than any yet known to us, which may produce effects upon the nervous system perceptible to some of the sensory organs; for magnetism is certainly a remarkable force, and we find it very difficult to understand why it seems to have no influence whatever upon the human body and its wonderfully delicate neuro-electro-mechanism.—*Medical Reprints.*

CASES OF PYOSALPINX TREATED BY UTERINE DRAINAGE
WITH SUBSEQUENT CONCEPTION.

The following interesting and instructive paper was read by ROBERT A. MURRAY, M.D., before the American Gynæcological Society on May 18 last, and was published in the *American Journal of Obstetrics*, in August:—It seems almost like heresy to bring before such eminent specialists and abdominal surgeons a paper having for its object the demonstration that pyosalpinx can be cured in some cases without resort to celiotomy and removal of the offending organs. From the pathology of Bernutz thirty years ago, and the demonstrations by Lawson Tait, Hegar, and many brilliant operators following their methods, gynæcologists became convinced that the vast majority of cases commonly diagnosed pelvic cellulitis were really cases of pelvic peritonitis resulting from disease of the Fallopian tubes and ovaries. The reasoning, however, was deficient, in that it did not go back to the cause of the disease in the tubes; and the treatment defective, when it did not seek to remove the endometrial inflammation which preceded the salpingitis. So we have had an era in which, to the practical surgeon, the diagnosis of tubal disease, particularly if there had been recurring attacks of pelvic inflammation, was the absolute indication for celiotomy and removal of the tubes and ovaries. During this period of tubal operations, from 1877 to 1886, I had a class in gynæcology in a dispensary which afforded a large field for observation of cases of salpingitis. The patients were poor, of the working class, and could not generally be persuaded to go to a hospital. At that time the ordinary treatment of these cases was rest; application of iodine and alteratives to the cervix, cervical canal and vaginal vault, counter-irritants, hot douche, as introduced by Dr. Emmet; and the use of the vaginal tampon, made with or without antiseptic and alterative drugs. Under this treatment many of the cases grew better slowly and required much general tonic treatment and care to prevent recurrence of the attack.

Following Prof. C. A. Budd and Dr. Leute, I very frequently made applications to the endometrium with Churchill's tincture of iodine, carbolic acid, and other irritant alteratives, but to do so had to dilate the cervix fully to prevent uterine colic and slight attacks of peritonitis. If the cervix was fully dilated the pain was not persistent after the applications, and the subsequent decrease in size of the large tubes and uterus was very marked.

In a number of the cases the patients told me that after this treatment there followed a profuse whitish discharge, and their relief from pain was coincident with this flow. And having observed this result, I was led to believe that, in my endeavour to cure the endometritis and to contract a large subinvolted uterus by the intra-uterine application, I had afforded a means of drainage to products of inflammatory action which being retained were the cause of disease. It then became my practice to dilate the cervix and to curette the endometrium—which I did because many had the history of previous abortions—the result being that improvement was very rapid in their general condition, and the tumours formed by the matted tubes and ovaries would very frequently entirely disappear, the uterus becoming movable. Pregnancy ensued in some of the cases which I followed, and, having confined them without any puerperal accident, I believed them cured. I did not at that time use iodoform gauze, though sometimes employing a loose tent of absorbent cotton in the cervix. These cases were not only those of a catarrhal nature, but also pyosalpinx, as was proved by the periodical flow of pus, while the patient was actually under observation, by gently pressing on the distended tube toward the uterus. The cases most benefited by this treatment were those in which the tubes and ovaries were almost at the brim of the pelvis in their normal position. The other cases, where the tubes and ovaries were displaced downward behind the uterus in Douglas' cul-de-sac and attached to the retroverted uterus, were benefited, in that the whole mass could be lifted up by vaginal tamponade, supported and allowed to drain, and so became less tender,

and more movable, and the heavy bearing-down pains at the menstrual periods were relieved. If these cases of the latter class occurred in people of means, who could take much care of themselves, the benefit was so great that operations seemed unadvisable. But in the chronic cases, with fixed uterus, and when no lifting up or treatment would aid, the uterine end of the Fallopian tube being sealed by inflammation, and occasional leakages at the fimbriated extremity causing recurrent attacks of peritonitis, I have advised, after a thorough treatment with the tampon of boroglyceride or ichthyol to reduce tenderness and soften adhesions, that the appendages be removed if exploratory celiotomy showed the necessity.

Not to burden the patience of the Society, I will narrate the histories of but six cases, three having a gonorrheal and three a puerperal origin.

Case I.—Gonorrhœal endometritis and pyosalpinx; conception.—Mrs. M. T., aged 21, married; had one child by former husband; no puerperal complications. I saw her in January, 1883, in an attack of pelvic peritonitis, with a history of gonorrheal infection five months previous from her husband. She had a very acute attack at the outset of the disease, and since that time suffered from a profuse leucorrhœa, extreme dysmenorrhœa, pain lasting for a week after menstrual period and confining her to bed. She is relieved by a free flow of matter and is then able to do her duties in the house; coition is painful; and though her disease is better, still after the occasional flow of matter, if intercourse occurs, it brings on a gleet in her husband. Physical examination shows a well-defined mass on the left side, very tender, fixing the uterus in a moderate retro- and left lateral version. Uterus enlarged; cervix lacerated, right side; right tube and ovary matted together, forming mass on right side, but smaller than left side. The vagina was syringed clean with 1-1000 bichloride solution; the cervix wiped dry with absorbent cotton; the cervical canal cleansed with cotton and found patulous to os internum. A tampon of boroglyceride was applied so as to support the pelvic organs, and left forty-eight hours, and absolute rest

enjoined. Opiates given to relieve pain, after free catharsis by Epsom salts. The pain was so much relieved at my next visit (in three days) that, after a carbolic douche, I made a bimanual examination and was surprised to find that, making careful pressure on the left tumour, which I recognised as a distended tube, I could cause quite a flow of pus from the uterus. Introducing the speculum, I saw the pus exuding from the cervix. I told the patient of the condition, advised the dilatation of the cervix, the curetting, washing of the uterine cavity, and pressure exerted by tampons of boroglyceride as she could bear them. Next day I etherised the patient, dilated the cervix, thoroughly curetted the uterus, cleansed it with bichloride douche with double-flow catheter, and applied a loose boroglyceride tampon, removing it in twenty-four hours. There was some soreness after the manipulation, but the temperature, which had fluctuated between 100° in the morning and 103° in the afternoon, became normal, and in three weeks, when I allowed her up, there was no discharge, the uterus had become movable, tenderness, only obtainable on deep pressure, was very slight, the hardness and exudations had almost disappeared from the broad ligaments. She ultimately became thoroughly well under tonics and hot douches. I cured her husband of gonorrhœa, dilated stricture, and they were both well. In May, 1885, two years after her recovery, I delivered her of a live child, necessitating version. No temperature or puerperal complications in convalescence.

Case II.—Mrs. R., aged 19, married five months; always healthy until married; menstruation normal. About two months before consulting me—February, 1884—had profuse leucorrhœal discharge, dysuria, heat and burning of vulva, and pain of lancinating character in lower abdomen. After the application of hot poultices to abdomen and hot vaginal douches, got better. Now the patient is suffering acute pelvic pain. Temperature $103\frac{1}{2}^{\circ}$, pulse 120, respiration 28. Has had vomiting, difficult and painful menstruation; abdomen distended, tympanitic, and very tender so that the bedclothes

cannot touch it. Vaginal examination reveals vulva and vagina hot, with purulent discharge; uterus fixed immovably, exquisitely tender, large exudations matting tubes and ovaries and rendering vaginal vault boardy to touch. Bimanual cannot be practised, as abdomen is too tender. Menses one week ago. Husband acknowledged having a gonorrhœa two months before marriage, but thought he was cured, but has had a gleet during the past three months; drinks moderately. Under the use of hot fomentations, poultices, and hot carbolic douches and opiates, with attention to the bowels, the pain and tenderness subsided in a few days, but the hardness of the broad ligaments, peritoneum and fixation of the uterus did not. Iodine and fly blisters were applied to abdomen and hot douche continued; but there was a rise of temperature each afternoon, and the patient seemed developing suppuration fever. Quinine, iron, and good easily digested food were given, and slowly her strength returned. As the tenderness had now subsided very much, bimanual examination revealed uterus fixed but not displaced. At both sides of the uterus, particularly on the right, a mass of exudation, through which could be felt the enlarged tubes, firm, immovable; a purulent discharge flowing from a very small cervix. Pressure on the uterus gave little pain, though in the fornix vagina was tender. After general treatment for ten days longer, with continuation of the local, the cervix was dilated, the uterus curetted and washed out with a carbolic douche, strong carbolic acid being applied to the whole endometrium with an applicator, followed by an antiseptic vaginal douche. Very little reaction followed this treatment, as the uterus was held firm and strict antiseptics was practised. In a week the uterus was much smaller, more mobile, and the exudations were much diminished. A profuse flow of pus now ensued from the cervix the tubes diminished in size, fever became reduced, and the patient was able to sit up and walk. After passing the menstrual period, which was the least painful of any since her marriage, she declared herself perfectly well. In three months afterward, with exception of some slight adhesions

fixing uterus, there was nothing abnormal to be felt. In May, 1886, two years after the attack, she engaged me to attend her in confinement, which occurred on July 1, and was normal, no puerperal complications. I have since confined her twice and attended her in one miscarriage.

Case III.—Gonorrhœa; abortion at third month; pyosalpinx; recovery: subsequent pregnancy.—Mrs. B., actress, 28, married three years; consulted me for severe attack of pelvic peritonitis due to gonorrhœa contracted from her husband. Menses normal; history good. She had had the attack of gonorrhœa for two months when she called on me; her husband still had gleet discharge. The case was a severe one, but not as protracted as the last cited, and was treated on the same principle, but without dilatation of the cervix or curetting. When able to get up and about, while still some enlargement of the uterus, exudate in the tubes and pelvic peritoneum, she took an engagement, but in three months returned, unable to work on account of abdominal pains and tenderness. Physical examination then revealed the uterus enlarged, normal in position, but immovably fixed by a large exudation on the left side, very tender to touch; a profuse purulent leucorrhœa. Patient put to bed; blister to abdomen, repeated at short intervals; hot douches and laxatives ordered when tenderness subsided; iodine applications to vaginal vault, followed after a while by boroglyceride tampons. The uterus decreased in size, the exudations diminished, only to show the tube distended and tender, the cervix small and a profuse leucorrhœa. The patient was now etherised, the cervical canal dilated, the uterus curetted thoroughly though gently, washed out with carbolic acid, and strong phenic acid applied to the endometrium with cotton swab, followed by antiseptic vaginal injection; reaction was not marked, the temperature improved, also the pain and soreness. Vaginal tampons were now employed, of boracic acid and glycerin, and at each sitting—usually every third day—the exudate was gently massaged toward the uterus, the result being a flow of pus. The patient became so much better that she

took another engagement and worked hard, the only treatment being a continuance of the tonic and hot douches twice a day. In about six months, at the end of the season's work, she presented herself pregnant about three months, the picture of health. She had an abortion before the end of a month, due to a fall, the ovum coming away intact. Convalescence normal, without complications. After a year she became pregnant again, and was confined without puerperal complication.

Case IV.—Pyosalpinx after abortion ; subsequent pregnancy.—Mrs. F., married, 22. October, 1889. Always suffered with dysmenorrhœa ; had an abortion three months after marriage, followed by an attack of puerperal peritonitis. I saw her with Dr. A. three months after, when physical examination showed large, subinvolved uterus, exudate on both sides of the uterus, very tender, uterus immovable, profuse purulent leucorrhœa. Advised dilating cervix, curetting uterus, and thorough antisepsis. This was done, and followed by hot douche, with vaginal tampons wet with boric acid and glycerin, the tampons applied in the knee-chest position, as the dragging of the uterus on the enlarged tubes caused such pain that she was not able to exercise. The tube emptied, as her physician said, nothing to be done except keep her uterus open and let the tubes drain. This was done. Gradually the discharge ceased. She was delivered by her physician two years after without any puerperal complication ; has enjoyed most excellent health, without dysmenorrhœa or pelvic trouble ; has now a healthy child nearly 3 years old.

Case V.—Puerperal peritonitis ; endometritis ; pyosalpinx.—Mrs. K., mother of five children ; very thin, wiry ; 32 years old. May 1, 1886. One month after last confinement saw her as consultant, with a very severe attack of puerperal peritonitis ; temperature 104°, pulse 136, respiration 32 ; abdomen distended, pulse small, compressible, and irregular, fœtid vaginal flow, uterus enlarged, patulous, foul-smelling discharge, large exudate fixing uterus, both sides of pelvis hard and very tender. After antiseptic douche of bichloride

1-3000 the finger was passed into the uterus and pieces of placenta, almost gangrenous in odour, were found attached to the uterus. The patient was so low—another consultant the same morning having refused to do anything—that it was only with the worst prognosis that I attempted to save her. The uterus was thoroughly curetted after antiseptic vaginal and uterine douche, and again washed thoroughly clean, so that no fœtor appeared in discharge after operation, the patient not being lifted from her bed. Enemata of brandy and beef tea were given every three hours; digitalis and strychnia by hypodermic, in small doses, repeated until the stomach could retain nourishment. The case improved slowly in her general condition; locally the uterine and vaginal douches reduced the fever and caused the uterus to become smaller. A purulent discharge remained, which, as the uterus was thoroughly clean, could only come from the tubes. I observed that after the douche the tenderness was much diminished, and on making an immediate bimanual examination after a douche I was able to press on the exudate on both sides and cause pus to flow from the uterus. As all fœtor had disappeared from the discharge and the tenderness had become bearable, I applied dry tampons of absorbent cotton covered with boric acid powder to the uterus and vaginal walls, first giving a vaginal injection, then gently massaging the exudate toward the uterus. These tampons were changed every twenty-four hours, the nurse pulling them out by the attached thread and giving a douche before my visit. The tampons gave such relief and support to the patient that she could move freely in bed, get up, and have the bowels act without pain. After a fortnight of this treatment the tumours formed by the matted tubes and ovaries, as well as the discharge, had diminished so much that the tampons were changed every two days, and her progress to recovery was rapid. She regained her health, was able in summer to travel to Europe, and I again attended her in June, 1888, with her last child, now 5 years old. No puerperal complications ensued.

Case VI.—Puerperal diphtheritis of vulva, vagina, uterus; endometritis; pyosalpinx; recovery; subsequent pregnancy without complications.—Mrs. G., 23, married two years, normal menstrual history. I saw her in consultation on the eighth day with Dr. B., who had delivered her with twins at the seventh month. Patient was very low, tympanitic and tender abdomen, dusky hue to skin. Temperature $100\frac{3}{4}^{\circ}$; pulse 128, small, irregular; respiration 30. Physical examination revealed laceration of perineum to the sphincter, covered with gray, diphtheritic slough, swollen and reddened vulva, erysipelatous blush from vulva to thighs and groin. Lochia scant, foul-smelling. Antiseptic douche given. Bimanual examination then showed laceration, bilateral, of cervix; uterus enlarged, sensitive; large exudation at both sides, fixing womb. The finger introduced into the uterus, which was patulous, found shreds of placenta, decomposed blood, and a very foul discharge. A hot intra-uterine injection, 1-5000 bichloride, was given, the uterus thoroughly curetted, irrigated, and, the speculum being introduced, the vagina and the portion of cervix which was lacerated and covered with diphtheritic membrane were painted with carbolic acid and tincture of iodine, equal parts, the same solution being applied to the membrane in the vagina and vulva, and an antiseptic pad applied. Ice bags were applied to abdomen; ergot, nuxvomica, and iron, and large quantities of whiskey and milk, given internally. After a preliminary rise the temperature gradually subsided. The vaginal and intra-uterine douche were used two to three times a day for ten days, when, the membrane having entirely disappeared, vaginal injection was alone given and iodoform applied to lacerations. When the patient was able to get up there still remained a thick, immovable uterus, with enlarged, distended, matted tubes and ovaries, which were treated by the hot douche, the boroglyceride tampon, counter-irritants to abdomen, and (as the pain prevented much exercise) by galvanic electricity. The absorption was slow, and as at times there was a flow of pus from the womb, especially on exercise, the patient, on the

advice of her friends, consulted two eminent gnæcologists, who advised the removal of the tubes and ovaries, as she would never be better and the organs were useless and dangerous. She came back to me, as the pain was relieved while under treatment and she earnestly desired a child, being a Jewess. I treated her for two months, gave her tonics, kept the uterus well dilated, and the vaginal douche was constantly used. After the summer vacation she was so much better, discharge almost gone from her, uterus more movable, tubes less tender, I advised her to take her tonics and stop all direct local treatment. Her health improved, and she came to me in two years, pregnant at the seventh month, anxious about her accouchement. I delivered her with forceps of a nine-pound child, male, and there was no puerperal complication, and the pelvis is normal. She has been well for the last three years.

From an observation of these cases—and of the six cases narrated, three had been seen by eminent specialists, who had determined that nothing but operating could afford relief—and also from the practice of many specialists who curette the uterus, under antiseptic precautions, some time before cœliotomy is done, with no bad results, even in pyosalpinx cases, I believe the following conclusions are fairly deducible :

(1) That many cases of pyosalpinx are curable without mutilating operations, if the endometritis be treated by curettage and drainage with strict antiseptic precautions.

(2) That true drainage of a pyosalpinx into the uterus is possible and does occur when the tubes and ovaries are on a level with the uterus, and the uterine end of the Fallopian tube is patulous, or can be made so by treating the uterus.

(3) That uterine curettage and drainage should be practised in every case before operation, unless the tubes are very distended and thin, to cure the endometritis, which may and often is a cause of trouble and lack of relief after cœliotomy and removal of the organs is performed.

(4) That, even after pyosalpinx, frequently the tubes and ovaries are not useless organs, the proof being that pregnancy occurs and the puerperium is normal.

(5) That only after proper treatment, the tubes, ovaries, and uterus remaining bound down by adhesions and a menace to life and health, should the radical operation be done.

(6) As a matter of observation in large maternities, there are very few cases of puerperal complication due to the presence or results of a former pyosalpinx.

The following interesting article on "The Relations of Operative Gynæcology to Insanity," by A. H. M'FARLAND M.D., appeared in the *Annals of Gynæcology and Pediatrics* for October, 1893:—After stating that the ideal aim of the progressive alienist should be the solution of the great problem of the physical foundation of insanity, the essayist quoted from Dr. Maudsley: "We recognise how entirely the integrity of the mental functions depends upon the bodily organisation, and as physicians we cannot afford to lose sight of the physical aspects of mental states if we would truly comprehend the nature of mental disease. We recognise the existence of an intelligent mental force, linked in harmonious association and essential relations with other forces, but leading and constraining them and led and constrained by them in its manifestations." Dr. Spitzka has stated that "Disordered states of the pelvic organs have been supposed to play an important part in the causation of insanity. It is known, however, that the grossest lesions of the uterine region are not usually complicated by such mental disturbance as justifies calling it alienation. Those pretty cases in which a delusional insanity is instantaneously cured by restoring a retroflected or retroverted uterus to a normal position, do not seem to occur nowadays, and the gynæcological epoch of psychiatry seems to have passed by, taking its adieu with the sacrifice at Blackwell's Island Asylum of Mary Ann Mullen, a sufferer from unrecognised katatonia on the altar of oöphorectomy. It would have been as reasonable to extirpate the bed sore of a sufferer from parietic dementia, or cut off the hæmatomatous ear of a terminal dement, with the hope of curing his insanity thereby."

Dr. Richard Dewey says: "The continuous and very considerable increase of insanity throughout our country, and the somewhat discouraging results of treatment, have led to dissatisfaction and to seeking after new ideas and methods, and this tendency has been further stimulated of late by the great advance in neurology, neuropathology, psychopathology and operative cerebral surgery. This general recognition of the defects of present methods, and search for newer and better ones, has, like all things human, its good and evil side. It is undoubtedly a good thing in itself, but there has been a disposition on the part of more recent converts to an interest in nervous and cerebral diseases to discard all past and present ideas as antiquated and insufficient, and to form extravagant expectations of results from newer appliances, while, at the same time, those already occupying the field have been, perhaps, too little aware of the possibilities brought within reach by the discoveries of recent years. These facts are illustrated by the abortive movement inaugurated a short time ago in London to establish an asylum for the insane, to be solely managed by a visiting staff of specialists in various branches, with not a man among them connected with any institution for the insane, or possessing a practical knowledge of the care and management of the insane, and there are numerous illustrations of the same kind in our own country. The men engaged in private practice in the specialties of brain and nervous diseases on the one hand, and the men in charge of institutions for the insane on the other, have, in times past, affiliated to only the slightest degree, and have misunderstood each other. And furthermore, the former have furnished most striking illustrations of their practical ignorance of insanity and its management, marked by calamitous results among their patients, while the latter have been found wanting in the scientific spirit, and have too often been absorbed in purely administrative matters, while the rich opportunities for pathological study and for original research have failed to be improved."

L'uterus c'est la femme is a proverb which has received a new development in these days; for if, by courtesy rather than by conviction, women be granted the possession of a few subsidiary organs, these, at best, have no prerogative nor any order of their own. The uterus has its maladies of local causation, of nervous and of mixed causation, as other organs have; but to assume that all uterine neuroses, or even all general neuroses in women, are due to changes in the uterus is as dull as to suppose that the stomach can never be the seat of pain except it be the seat of some local affection. While pelvic and abdominal diseases of women are more frequently and intelligently recognised by the profession now than formerly, it may be affirmed that more women, ten to one, have been consigned to hospitals for the insane (victims of needless or unskilful surgical operations) than have been restored to reason by the most commendable and skilful abdominal surgery. The essayist did not deny that insane women are capable of suffering from local disorders, and that surgery offers no hope of amelioration to these unfortunate women. In some cases anæsthesia may exist, masking conditions so that no suspicion of their nature is entertained; in other cases hyperæsthesia makes the most trifling ailments appear as serious, while no doubt there is a large number of mentally sick women who suffer, and are conscious that they suffer, from some local disorder, manifested to them in the form of pain or irritation.

Hysterical mania is not an uncommon complication of the diseases of women. Two months ago such a case came under my observation, with the following history:—Mrs. H., aged 30, admitted to hospital February 7, 1893, married four years, three children, no history of insanity in family. Birth of first child produced laceration of third degree. Perineorrhaphy performed two months after delivery, leaving the patient in a weakened and nervous condition. Whitehead's operation, to which she submitted under protest, was then performed. Within two months she became so insane that a verdict was easily obtained. My diagnosis could be easily

made as a case of hysterical mania, aggravated by local treatment of a year, and two unsuccessful operations.

Dr. J. M. BALDY read a paper before the American Gynæcological Society, on "Insanity following Laparotomy," in which he gave statistics from the insane asylums of Pennsylvania, in regard to the number of patients received after laparotomy. From eighteen institutions he received reports of fifteen cases, and reported one of his own for rectocele, after which the patient developed melancholia, and another having chronic confusional insanity after oöphorectomy.

Dr. Martin cites several abdominal operations of his own upon insane women, viz., the removal of appendages for recurrent mania. Result, moods as variable as before, and mental confusion took the place of previous excitement.

Salpingo-oöphorectomy for grand mal, with dementia. Result, no appreciable improvement occurred in the nervous condition.

Large ovarian tumour removed for delusional insanity. Result, patient succumbed to exhaustion four days after the operation.

The questions to be answered are : Are the results lasting? Is the patient's condition definitely and permanently benefited, and will she continue to regard the operation as a blessing? That it is so constantly the case as to constitute a justification for an operation, in the absence of urgent and direct symptoms, remains to be proven.

Under the term "delirium traumaticum nervosum" the older surgeons described mental symptoms which made their appearance after surgical operations. The symptoms consisted of great motor agitation and visual and auditory hallucinations, and rarely symptoms of a violent or stuporous type, from which the patient may recover or remain permanently insane.

Four possible dangers should be considered :

- (1) Previous insane taint.
- (2) The anæsthetic.

(3) Fear of the operation.

(4) Sepsis.

The essayist did not believe one factor sufficient to account for a serious result.

The chief medical error of the present day is the mistaking of brain disease for pelvic disease, and the prayer of the neurologist in behalf of the neurasthenic woman is for rest for her whole organism from needless irritation and unnecessary gynæcological operative disturbances. This does not include a protest against the treatment of the real consequences of gynæciac disease, nor of those uterine disorders which are the result of neuropathic disorder, the hyperæmias, hyperplasias, morbid growths, grave traumatisms and displacements. These are surely numerous enough to keep gynæcologists employed.

The day of gynæcological errors is waning ; a light shines from behind the cloud. It is the ray of the neurological sun. Through the clouds, day dawns for woman's emancipation from the misery of medical error, and a true neurological gynæcology is born into the family of clinical and therapeutic science.

Conclusions.

(1) Gynæcological operations are more likely than any other surgical procedures to disturb the mind.

(2) Hereditary antecedents of the patients should always be determined.

(3) In insane patients operations should be performed only when the physical condition endangers or renders life insupportable.

(4) Patients, precedent to the operation, should be in a calm frame of mind—hence, moral treatment of the patient previous to operating is the best prophylaxis.

(5) Inherited and acquired insane constitution is the fundamental factor in most cases of insanity. This conclusion does not, however, justify us in ignoring physical diseases immediately preceding or associated with insanity.

(6) Healthy genital organs do not give rise to reflex symptoms, consequently caution should be exercised in operating for the relief of insanity.

(7) Operations may be satisfactory in properly selected cases.

In the *Annals of Gynecology and Pædiatry* for July, 1893, there is a valuable paper by Dr. BAERG, of Philadelphia, advocating the operation of vaginal hysterectomy for complete prolapsus. He recommends that after removal of the uterus, the stumps of the broad ligaments should be brought down and fixed in the opening in the vaginal vault, and he claims that if the operation be properly performed, the vagina will be drawn back into the pelvis to its full extent, and when the subsequent contraction, due to the healing, takes place, will be held securely and safely in its normal position by the anchorage obtained from the broad ligaments. Such a support from above is obtained as is possible by no other operation as yet devised, and if subsequently a plastic operation be done upon the anterior and posterior vaginal walls, the result will be perfect, complete and permanent, leaving nothing to be desired. All the indications have been met; the weight of the uterus has been gotten rid of by its removal and the vagina has obtained its necessary support from above—a support which is absolutely necessary for the accomplishment of a permanent and sure cure.

The same journal for June reprints a most interesting article on the "Contagiousness of Puerperal Fever," published by Dr. Oliver Wendell Holmes in 1843.

**SUMMARY OF GYNÆCOLOGY, INCLUDING
OBSTETRICS.**

VULVAR.

HÆMATOMA OF THE VULVA.

Dr. GRACE P. MURRAY relates (*Am. Jour. of Obstet. and Dis. of Women and Child.*, Aug., 1893) the case of a patient, in whom the whole of the superficial venous system was much nearer the surface than usual. Shortly after the commencement of the second stage of labour, there appeared a stream of blood at the vulva, and it was supposed to be due to separation of the placenta or the rupture of a vaginal vessel. The head was brought down as quickly as possible to stop the hæmorrhage. The labour terminated and the placenta followed shortly without any trouble, and the uterus became contracted. About five hours after, hæmorrhage commenced, and the left labium major swelled to the size of an orange in a very short time. It was tense and glistening; the lower portion of the vulva, where the fourchette had become lacerated, was marked by a huge clot, and the vulvar orifice was filled with a clot and the blood was clotted about the mons veneris. No blood was escaping, and as the patient had become greatly exhausted, it was deemed advisable not to disturb anything until morning. The next morning the tumour had decreased in size and the clots were removed from the outside with some difficulty. While attempting to remove the clots which had formed about the lacerations, bleeding recommenced, and hence the author determined to use the expectant plan of treatment. Douches of one in 3,000 bichloride were ordered twice daily, and the vulva was dressed with the same and bismuth was blown into the vagina

after the douches. It was remarkable how quickly the tumour subsided. Huge vaginal clots came away three days after, and on the fourth day it was hardly larger than a butter-nut, and on the seventh day the clot attached to the labium fell off, leaving a nice clean wound and the parts of a normal size.

VAGINAL.

DANGERS OF VAGINAL PESSARIES.

Dr. NEUGEBAUER, of Warsaw (*Am. Lancet*, August, 1893), has published an exhaustive analytical monograph on this question, so important in these days when gynæcology is widely practised by the surgeon and physician as well as the specialist. Two hundred and forty-two cases of injury have been collected and analysed, five being added in an appendix. Tabulating the results, Dr. Neugebauer presents the medical public with the following formidable statistical records: 23 cases of perforation of rectum alone by the pessary; 20 cases of perforation of the bladder alone; 10 cases of perforation of the bladder and rectum; 1 case of ureteric fistula alone; 1 case of ureteric and vesico-vaginal fistula; 1 case of urethral-vaginal fistula; 2 cases of perforation of Douglas' pouch (neither fatal); 3 cases of perforation of the vaginal wall, the extruded portion of the pessary lying in the pelvic connective tissues; and 6 cases of entry of a vaginal pessary into the uterus.

ABDOMINAL SECTION IN CASES OF VESICO-VAGINAL FISTULA.

VON DITTEL (*Wiener klin. Wochenschrift*, 1893, No. 25), after reviewing the history of the operation, describes his technique in the case of a difficult fistula. With the patient in Trendelenburg's posture, he made a median incision extending from the umbilicus to the symphysis pubis, seized the fundus with a volsella and drew the organ upward and backward. While one assistant elevated the uterus, another

pressed the bladder upward and against the symphysis, keeping the organ on the stretch. The vesico-uterine fold of peritoneum was then incised transversely, and the bladder was peeled off (as in abdominal hysterectomy) as low as the portio, until the fistula was thoroughly exposed; the edges of the latter were then denuded, and the opening was closed with fifteen interrupted sutures. The ureters were not disturbed. A drainage tube was passed through into the vagina, and the abdominal wound was closed with a strip of gauze inserted at its lower angle behind the symphysis. Recovery was prompt, but in consequence of the obstinacy of the patient the fistula did not close completely.

In order to avoid the danger of urine escaping into the peritoneal cavity, the writer advises that the bladder be empty at the time of operation. If the uterus is drawn forcibly upward all the urine will escape *per vaginam*, and in any case the wound can be thoroughly protected with gauze pads. He would only apply the abdominal operation to cases of long standing in which the fistula is inaccessible *per vaginam*.

BACTERIOLOGY OF THE INFANTILE VAGINA.

V. V. STROGONOFF (*Vratch*, No. 20, 1892), having examined the vagina bacteriologically in thirty-three girls, aged from 5 hours to 8 days, has come to the following conclusion:—(1) When examined shortly after the infant's birth, the vagina is found, as a rule, to be absolutely free from microbes. (2) Subsequently the number of infants without vaginal bacteria rapidly decreases. (3) After the first bathing most new-born girls are found to have microorganisms in the vagina. (4) The microbes penetrate partly through the agency of the water used for the bath, partly through the customary anointing of the child's genitals with some fatty substance; they may also be introduced during the performance of artificial respiration. (5) Breech presentation favours an earlier penetration of microbes into the genital tract. (6) On the whole, the infantile vagina

constitutes a favourable medium for the proliferation of bacteria. Only non-pathogenic microbes (species not stated) were found by the author.

UTERINE.

PASSAGE OF THE SOUND THROUGH THE UTERUS.

JACOBS records (*Centralb. f. Gynak.* No. 4.—*Univ. Med. Jour.*, June, 1893) that whilst operating upon a woman 36 years of age and subject to chronic endometritis, he introduced the sound cautiously and found that it passed upward to its hilt. The point could be plainly felt under the parietes. As no force was used, he concluded that it had passed through an old metro-peritoneal fistula. It was withdrawn and passed in the lateral direction, when the uterine cavity was found $3\frac{1}{4}$ inches long. The uterus was packed with iodoform gauze; no fever or other evil result followed. The opening, however, persisted. Walton believed that in this case the sound passed through a dilated Fallopian tube. The writer, in two instances, punctured the uterus in passing uterine bougies; in one the abdomen was opened and the opening sutured. In the other the uterus was packed with iodoform gauze. The puncture did not affect the subsequent convalescence in either case. A patient came under observation some years ago, in whom the sound could be passed through, apparently, the anterior wall of the uterus whenever it was introduced in a certain direction. This patient experienced no inconvenience from it.

TREATMENT OF CERVICAL ENDOMETRITIS.

M. BOUILLY advocates (*Gazette des Hoptx.*—*Shof. Med. Jour.*, July, 1893) the following treatment:—The cervix is first dilated so that the mucous membrane is well exposed, then a strip of mucous membrane is cut from each lip, leaving a narrow band of the mucous membrane, so as to avoid a commissural reunion. A widely dilated cervix is thus

obtained, and the cavity is then stuffed with iodoform gauze soaked in creasote and glycerine (1 to 3). He has performed this operation forty times with complete satisfaction. A little hæmorrhage occurred in five or six cases; no stenosis followed the operation.

HYDRASTININE IN UTERINE HÆMORRHAGE.

GOTTSCHALK says (*Brooklyn Med. Jour.—Amer. Lancet*, July, 1893) that hydrastinine may be employed in those uterine hæmorrhages that depend on the congestion of the uterus, as for instance, the often very profuse menorrhagias of spinsters which are not associated with any pathological changes in the genitals.

Also in hæmorrhage from endometritis, where it acts as a palliative.

For prophylactic or intra-menstrual use, it is useful before or during the first returning profuse menstruation after an abrasion of the uterine mucosa.

Metrorrhagia dependent upon pathological changes in the pelvic organs are also amenable to it.

Climacteric menorrhagias are much diminished by a faithfully carried out hydrastinine treatment.

TREATMENT OF UTERINE FIBROIDS.

This subject seems to be attracting the chief attention of gynæcologists at present, judging by the space allotted to it in various society discussions. The following views were expressed at the recent French Surgical Congress.

KOBERLÉ; Fibroids are essentially benign in character, but may become dangerous in the process of evolution. Tumours impacted in the pelvis constitute a real indication for operative interference. Intra-uterine fibromata, giving rise to excessive hæmorrhage, require an operation whatever may be the age of the patient. Large, firm tumours which are stationary should not be interfered with, especially if the patient is near the climacteric. An operation is rarely indi-

cated in the case of sub-peritoneal growths attached to the fundus uteri, since they seldom threaten life. In performing hysterectomy, the speaker stated that he had always used clamps in securing the broad ligaments, having first employed them in 1865.

PEAN: Fibroids are not such benign growths as has been supposed. Sarcomatous degeneration and coexisting epithelioma are to be feared, as well as degenerative changes and resulting septic infection. The dangers of pregnancy in this connection are many and serious. The speaker has noted intestinal obstruction, renal complications, and various abnormal conditions of the adnexa, as well as peritonitis and hæmorrhage. In the majority of his cases the tubes and ovaries were found to be diseased. His results were as follows: In two hundred cases of abdominal hysterectomy (1868 to 1893), his mortality was 15 per cent., in fifty combined operations 2 per cent., while in three hundred vaginal hysterectomies for fibroid tumours (performed between 1882 and 1893) the mortality was only 2 per cent. The speaker attributes much of his success to the use of clamps and removal of the tumour piecemeal.

BOUILLY: Hæmorrhage and pain are indications for castration, since disease of the adnexa exaggerates most of the symptoms due to the presence of the tumour. In the speaker's experience, pain and hæmorrhage ceased in 70 per cent. of the patients upon whom he operated.

POZZI: Vaginal hysterectomy is preferable to castration; the latter operation should be reserved for cases in which the patient is too weak to submit to total extirpation, or where the tumour is very large and is within the folds of the broad ligament. Removal of the adnexa does not eliminate pressure symptoms.

CONDAMIN recommends intra-uterine applications of chloride of zinc in the case of fibroids which cause hæmorrhage only, when the patient is near the menopause, or is too weak to undergo an operation. Cauterization gives more permanent results than curettage. Stenosis of the cervix is

avoided by dilating thoroughly, introducing a pencil of zinc into the uterine cavity, and then tamponing the cervix tightly with gauze.

DELAGÈNIÈRE: Abdominal hysterectomy should be selected in the case of all tumours that extend to the umbilicus, while castration is preferable for small tumours in young women, when hæmorrhage is the principal symptom. Small submucous fibroids may be enucleated; vaginal hysterectomy should, however, be preferred if the uterine cavity is deep and irregular and difficult to drain. In all other cases total abdominal hysterectomy is indicated.

THE PALLIATIVE TREATMENT OF CARCINOMA OF THE CERVIX UTERI.

SANGER (*Schmidt's Jahrbuch*, Bd. ccxxxvii. p. 88) calls attention to the fact that Carl von Braun, before the days of total extirpation, succeeded in permanently curing 20 per cent. of his cases by amputating the cervix with the galvano-cautery loop, while Winter has shown that the results after extirpation are only 5 per cent. better. Only one-fourth of the whole number of patients who consult gynæcologists are still in an operable condition; in those in which the disease has invaded the vesico-vaginal septum and the peri-uterine tissues palliative treatment alone is justifiable. This consists in curettage followed by cauterization with the Paquelin, and, after the slough has come away, applications of solutions of chloride of zinc (50 to 30 per cent.). The writer separates the remains of the cervix as high as the peritoneum anteriorly and posteriorly and the bases of the broad ligaments laterally before removing the diseased tissue, tying any spurting vessels. The cervical canal is thoroughly cauterised. At the end of two weeks the chloride of zinc is applied several times. In one case of inoperable carcinoma thus treated there was no recurrence in nearly three years. In only one case out of five has there been a recurrence.

TREATMENT OF POSTERIOR DISPLACEMENT OF THE
UTERUS.

J. WHITRIDGE WILLIAMS, M.D., (*Maryland Medical Journal*, April 29, 1893), in the course of his very interesting paper, thus describes Dührssen's method of operating: At the meeting of the Berlin Gynecological and Obstetrical Society, held July 8, 1892, Dührssen, Gusserow's assistant, described a method of operating which certainly far surpasses any other vaginal operation yet suggested, from both a theoretical and surgical point of view. He makes a transverse incision two to three centimetres long in the anterior fornix of the vagina, just anterior to the attachment of the vaginal portion of the cervix, and then separates the bladder from the anterior surface of the cervix and the body of the uterus as high up as possible without breaking through into the peritoneal cavity, just as one does in the first step of a total extirpation of the uterus by the vagina. A sound is then introduced into the bladder to act as a guide, and the uterus is thrown forward by a second sound; then a ligature is introduced into the anterior wall of the uterus as high up as possible, but is not tied, and is to be used simply as a tractor. On making traction upon this one is enabled to pass a second ligature above it, and so on, until three or four tractors have been passed, and we are enabled by their aid to draw the fundus forward and downward, and hold it in the desired position. Then three silk ligatures are passed through the anterior wall of the uterus, and above the highest tractor, and then through the vaginal wall, just in front of the incision, and include its entire thickness except the mucosa. They are then tied, cut short, and the incision in the anterior fornix closed; the vagina is packed with gauze, and the woman put to bed, and kept there about two weeks. Dührssen has performed this operation one hundred and forty times in all, and none of the women have been seriously ill from it; 89.4 per cent. of the cases operated upon have been permanently cured. This is certainly a brilliant showing, and the operation appears to be more scientific than the other vaginal methods

yet suggested. An operation more or less similar to the above was described by Mackrenrodt one month before Dührssen's paper was read, but he had not given his operation anything like the trial to which Dührssen had subjected his own operation (v. also p. 334).

A NEW AND RAPID METHOD OF REMOVING THE UTERUS.

AT a recent meeting of the Kansas City Academy of Medicine, Dr. Emory Lanphear (*Indian Medical Journal*, March 18, 1893), presented a number of fibroid tumours, sarcomata, &c., removed by a new method of abdominal hysterectomy. The abdomen and vagina having been carefully sterilized, he makes an incision in the median line terminating as close to the pubes as possible, draws the uterus with one tube and ovary to one side and applies a clamp to the broad ligament; a strong ligature is passed a half inch from this, including the blood vessels, and tied; the intervening tissue is then cut with scissors. Upon the opposite side the same procedure is carried out. When done the uterus (hitherto held down by the broad ligament) can be lifted up into the wound and separation from bladder and rectum easily accomplished; these incisions, before and behind, are carried into the vagina, when a Kelly's or Polk's clamp is introduced through the vagina as close as possible to the uterus, its point reaching the ligature already tied in the broad ligament. As soon as properly applied it is closed and its fellow-clamp inserted upon the side when the uterus is quickly cut away with curved scissors. The pelvis is irrigated and the abdominal wound closed and drainage made through the vagina as in cases of vaginal hysterectomy. The clamps are removed in forty-eight hours. The operation can be done in twenty five to thirty minutes, being much easier than even vaginal hysterectomy with clamps. By the rapidity allowed and by the good drainage secured, Dr. Lanphear thinks this operation can be done almost as safely as an ovariectomy—certainly as safely as a vaginal hysterectomy.

tomy; and it is much preferable to any method which leaves a pedicle or stump behind. He finds it is not necessary to unite the bladder to the rectum, as union takes place just as quickly without sutures as with them.

ATROPHY OF THE UTERUS IN YOUNG WOMEN.

GOTTSCHALK (*Volkmann's Sammlung klin. Vorträge*, No. 49, 1892; *Ibid.*), devotes a monograph to this important subject, so closely associated with sterility. He gives clinical histories of a large number of cases which he has observed in girls and young women. Without any doubt atrophy of the uterus is often the direct or indirect result of scarlet fever, typhoid fever, and acute articular rheumatism. The uterus may be directly involved—indeed, ovarian disease, particularly scarlatinal oöphoritis, often proceeds slowly, and undergoes spontaneous cure, though when severe or very chronic it usually involves uterine atrophy. Gottschalk particularly notes that in four of his cases the patients were attacked by typhoid fever at the time of their first menstruation. These researches are held to show that it is necessary to maintain tonic treatment in all cases of the above named acute diseases, when they attack young women, long after the disappearance of fever. The return of strength is then usually followed by the re-appearance of the period. Santonin and permanganate of potassium seem to hasten the disappearance of amenorrhœa. The pelvis must be explored, and if the ovaries feel enlarged, warm baths, iodine, and ichthyol will be needed. Should this complication be neglected, the atrophic condition of the uterus will soon become incurable.

VAGINAL LIGATION OF A PORTION OF THE BROAD LIGAMENT FOR UTERINE TUMOURS.

FRANKLIN H. MARTIN (*Univ. Med. Magazine*, Nov., 1893) reports three additional cases of this operation, two having been reported early in the year. The operation

consists in the ligation, *per vaginam*, of more or less of the broad ligament, with its vessels and nerves, the extent of the ligation depending upon the result sought, from a simple ligation of the base of the ligament, including the uterine artery and branches of both sides, without opening the peritoneum, to a complete ligation of the ligament of one side, including both uterine and ovarian arteries, with partial ligation of the opposite ligament, without opening the peritoneal cavity, if possible, but doing so, if necessary. In all of the cases operated upon there was immediate improvement in respect to the hæmorrhages. In three of the cases there has been no return of hæmorrhage during the ten months that have passed since operation, while in two cases the flow has diminished considerably, but has increased over the amount present immediately after the operation. Pain has also diminished in all cases, and disappeared in three, and the size of the tumours has decreased in a marked degree in two cases. One case is particularly instructive as showing the merits of the operation, and as suggesting a field for its application.

CASE IV., aged 36, with menorrhagia and metrorrhagia for five years. The abdomen was opened in December, 1892, with a view to removal of the tumour, but the operation could not be completed on account of the extensive adhesions (the tumour filled the pelvis and reached to umbilicus), nor could the appendages be removed. Subsequently the base of each broad ligament was ligatured, and the bleeding immediately ceased and did not return for two weeks. There was then a moderate flow, which resembled an ordinary menstruation, and this returned each month without pain, and the patient has been improving from the day of operation, and is able to attend to her household duties in perfect comfort. The tumour has greatly decreased in size, so that at present the patient is not conscious of its presence.

A NEW METHOD OF TOTAL EXTIRPATION OF THE
CANCEROUS UTERUS.

HERZFELD (*Centralblatt für Gynakologie*, 1893, No. 2. quoted in the *American Journal of the Medical Sciences*) describes the following modification of the Hochenegg-Kraske operation, which he has adopted successfully in several cases : The patient being in Sims's position, an incision is made extending from the right posterior inferior spine, along the median line of the sacrum, to a point half an inch from the anus. The coccyx is removed, and, if necessary, the lowest sacral vertebra. The rectum being exposed, is drawn over to the left. The vagina can now be separated, if it is desired to resect a portion of it. Douglas's pouch is opened, the index finger is carried over the fundus uteri, and the organ is hooked backward. It is now possible to actually inspect the whole of the broad ligaments, the vesico-uterine fold, and the ureters, and to feel the uterine arteries. Adhesions are easily separated under the eye. The advantages of the lateral position are now seen, since in Kraske's operation the peritoneum is carried forward, so that it is difficult to reach and incise it. The broad ligaments are ligated in three portions, any infiltrations at their lower borders being readily dissected out. The bladder is next separated. The peritoneal edges are now sutured, including the stumps of the broad ligaments, which are thus fixed extra-peritoneally. The peritoneal cavity is thus closed before the vagina is opened, so that no cancerous or septic matter can enter the abdomen.

The uterine arteries are next ligated, with their vaginal branches if necessary. The ureters can easily be felt and avoided. The vaginal fornix is then opened, and the uterus is removed, the vaginal wound being closed with Lembert sutures, so that the raw edges are turned into the vagina. There remains a conical wound a couple of inches in depth, the apex of which is at the line of peritoneal sutures ; this is tamponed lightly with iodoform gauze and the external wound is closed, leaving a small opening at its lower angle for drainage.

The advantages of this method of total extirpation over Hochenegg's are the ease with which Douglas's pouch can be opened, and the fact that the peritoneal cavity is closed before the vagina is incised, while the operation in general is easier and less bloody. It is especially adapted to cases in which the vagina is involved and the uterus is fixed by adhesions while the broad ligaments are still free from carcinomatous infiltration.

VAGINAL HYSTERECTOMY IN THE PREGNANT CANCEROUS UTERUS.

M McNUTT, in an article read before the San Francisco Gynecological Society (*Pacific Medical Journal*, 1893, xxxvi.) reports the case of a woman, aged 29, of good family history, mother of four children, with three miscarriages. Examination showed the cervix enlarged, with epithelial-like excrescence, quite filling the vagina, and bleeding at the slightest touch. Bimanual examination revealed the fact that the body of the uterus was much enlarged and quite movable except at the left vaginal juncture. There was constant hæmorrhage, but no regular menstruation for three months. A diagnosis of probable pregnancy, complicated with uterine cancer, was made, and vaginal hysterectomy advised. The uterus was found at the operation to be larger than the bimanual examination indicated; many adhesions were present. The tissues were very vascular, and the hæmorrhage more than usual. It was found impossible to ligate or clamp on account of the cervical growth, and after much difficulty he succeeded in bringing the fundus down, but even then was unable to ligate and clamp on account of the size of the uterus, which filled the vagina completely. On this account he was compelled to split the uterus, and the child was delivered. Uterus and appendages were removed. The patient made a good recovery.

When the child has been carried to full term, it has been found that over 50 per cent of the mothers die undelivered,

and of those delivered at the end of gestation about 30 per cent. die within a few days after delivery, making over 80 per cent. of maternal deaths if the child is carried to term. He strongly recommends early vaginal hysterectomy in these cases.

DÜHRSEN'S OPERATION FOR RETROFLEXION.

DÜHRSEN (*Centralblatt für Gynäkologie*, 1892, No. 47, quoted in the *American Journal of the Medical Sciences*) reports 130 operations (on 113 patients) for retroflexion of the uterus, with a permanent cure in 89.4 per cent. of the cases. In two-thirds of this number the organ was adherent, and the condition was complicated with prolapsed and adherent ovaries. Three of the patients were pregnant at the time of the report, and one had been delivered prematurely.

The following is the writer's mode of procedure : Adhesions are previously separated by Schultze's method. The vagina is thoroughly disinfected with a one per cent. solution of lysol, the operation being conducted under constant irrigation with a weaker solution of the same. A Sims's speculum is introduced, the anterior lip of the cervix is drawn down with bullet-forceps, and the uterine cavity is thoroughly curetted and irrigated with lysol. A sound is introduced into the bladder, and the viscus is pressed upward and forward by an assistant on the right. At the same time, the cervix is drawn downward, the usual incision is made in the anterior fornix, and the bladder is separated with the finger, up to the insertion of the peritoneum, as in vaginal hysterectomy. Another sound is then introduced into the uterus and the organ is strongly anteverted by an assistant on the left, until it comes in contact with the left index finger of the operator, which has been kept in the wound. The surgeon now transfixes the fundus with a curved needle, carrying a silk ligature, passed transversely; this ligature being only temporary is not tied, but the ends are held by the assistant on the right. From two to four provisional ligatures are thus inserted, each at a little higher level than the preceding one. Traction upon these serves to depress

the fundus uteri still more, so that the surgeon can now insert three permanent silk sutures in a direction parallel with the axis of the vagina ; these include the edges of the vaginal womb—but *not* the mucous membrane—and the muscular tissue at the fundus, and are tied, cut short and buried. The temporary ligatures are then withdrawn, and the vaginal wound is closed with a continuous catgut suture. The sound is removed from the uterus, the uterine cavity is again irrigated and the vagina is tamponed with iodoform gauze.

The operation requires about ten minutes for its performance, and has never been followed by either severe pain or any bad results in the hands of the writer. The patient is kept in bed for eight days, but is not allowed to resume her ordinary occupation for some weeks. Occasional vesical irritation and menorrhagia of a transient character were the only disturbances which were noted in a few instances ; in one case the sutures were discharged through the bladder. The mortality was *nil*, and in one case only was there slight septic trouble, due to the fact that bystanders were permitted to examine the patient immediately after the operation.

The writer regards his method as a decided improvement upon Schücking's, in which there is great danger of injuring the bladder and even the ureter, as shown by Glaeser ; moreover, the suture within the uterine cavity may cause endometritis. Schücking's operation is followed by considerable pain, and the patient cannot dispense with a pessary, which is not required with Dührssen's method.

TUBAL.

STRANGULATED HERNIA CONTAINING A FALLOPIAN TUBE.

LEJARS reports (*Rev. de Chirurgie*, Jan.—*Univ. Med. Jour.*, June, 1893) a case of strangulated inguinal hernia, in which the sac, when opened, contained no omentum or intestine, but a small quantity of reddish fatty fluid, and the fimbriated extremity of the Fallopian tube. Pus escaped from its ostium and the entire tube was sloughing. It was not until the internal

ring was divided that the tube could be drawn forward and its proximal strangulated portion brought to light. Healthy tissue was secured by catgut and the mucosa touched with the cautery in order to destroy septic germs. The stump was permitted to slip back into the abdominal cavity. The bladder was wounded in dissecting away the sac, and was followed by urinary fistula, which continued for some time. Lejars has collected eleven cases of hernia of the Fallopian tube alone. Tubo-ovarian herniæ are almost always inguinal, while the tubal are generally femoral. The youngest case was aged 36 and the oldest 70, which contradicts the theory formerly held that such conditions were congenital.

OBTURATOR HERNIA CONTAINING THE TUBE AND OVARY.

ROGNER-GUSSENTHAL (*Wiener med. Presse*, 1893, No. 26) reports a rare case of incarcerated obturator hernia in a patient sixty-six years old, which terminated fatally on the fifth day after operation. At the autopsy it was found that the hernial sac contained the right broad ligament with the tube and ovary, the uterus being drawn over to the obturator foramen. The condition had probably existed for twenty-six years, the history showing that incarceration had occurred on previous occasions. The event showed that a median incision in Trendelenburg's posture would have been preferable to the inguinal operation which was performed. Only three similar cases have been reported.

FREQUENCY OF LEFT FALLOPIAN TUBE DISEASES.

Dr. F. BYRON ROBINSON, of Chicago, finds that the lumen of the left Fallopian tube is larger than that of the right. This fact, he thinks, together with a restless rectum, a loaded sigmoid flexure resting on the left ovarian vein, the opening of the vein at right angles to the left renal vein, and the greater size of the left pampiniform plexus, accounts for the greater frequency of pelvic disease on the left side in women. He finds valves in the left ovarian vein in about two-thirds of

the bodies he examines. The size of the lumen of the left tube, he thinks, facilitates the admission of septic material.—*N. Y. Med. Jour.*, May 6, 1893.

HÆMORRHAGIC NECROSIS OF THE FALLOPIAN TUBE.

SÄNGER (*Centralblatt für Gynäkologie*, 1893, No. 31) describes under this term a comparatively frequent condition, in which hæmorrhage into the tube occurs as the result of torsion of the pedicle of an ovarian cyst, sometimes also in hernia of the tube. The writer reports a case of double salpingitis in which he performed cœliotomy, finding the left tube so compressed and twisted by surrounding adhesions that the tubal wall was filled with blood-infarcts that had undergone necrosis. There were no thromboses in the veins of the mesosalpinx. Clinically, the sudden enlargement of a tube which is known to be the seat of chronic disease, associated with pain and other evidences of peritoneal irritation, but without accompanying fever, should arouse the suspicion that such hæmorrhage has taken place.

PRIMARY EPITHELIOMA OF THE FALLOPIAN TUBE.

ROUTIER (*Bull. et Mém. de la Soc. de Chir. de Paris*, 1893, No. 1) reports a case of this rare affection, the specimen being removed by cœliotomy. The tube was enlarged to the size of a coil of small intestine, and had a smooth symmetrical outline. The distal end formed a cyst the size of an orange; the corresponding ovary could not be found. The tube, as well as the cyst, was filled with a thick, fibrinous mass, unlike the contents found in chronic salpingitis. Under the microscope, the muscular wall did not appear to be hypertrophied, though the submucosa was thickened and contained large alveoli of connective tissue filled with epithelial cells, some flat and others cylindrical, with multiple nuclei.

BROAD LIGAMENT FIBROIDS.

GROSS, of Nancy (*Sem. Med.*, April 20, 1892), finds that myomata of the broad ligament, physically and clinically

unconnected with the uterus, have undoubtedly been observed. It is, however, impossible to insist that they did not originally arise from uterine tissue. Of necessity they are nearly always sessile, only five authentic cases of pedunculated broad ligament fibroids having been described. A sixth case has occurred in Gross's own practice. He recently removed a pedunculated tumour of the right broad ligament, weighing five pounds seven ounces. A growth of this class is hard to diagnose from a solid ovarian tumour. Surgically speaking, it may be treated as any other pedunculated tumour, such as an ovarian cyst or a sub-peritoneal fibroid.

OVARIAN.

CONSERVATIVE OPERATIONS ON THE UTERUS AND ADNEXA.

MARTIN (*Deutsche med. Wochenschrift*, 1893, No. 30) reports 27 cases of resection of one ovary after removal of the other, with one death, 8 of the patients subsequently becoming pregnant. In 40 operations for resection of atretic tubes, after extirpation of the opposite one, he had 3 deaths, one patient conceiving. Twenty-six patients died in 141 operations for the enucleation of interstitial fibro-myomata of the uterus; there was no death in the last 20. Two women subsequently conceived.

As the result of his experience, the writer believes that conservative are no more dangerous than radical operations; that the patients are nearly always relieved of their symptoms, while the functions of the preserved organs are maintained, so that pregnancy is possible, while labour is not attended with especial risks.

OVARIOTOMY WITHOUT CHLOROFORM.

LAYEAU (*Annales de Gynéc. et d'Obstét.*, May, 1893) reports a case of double ovariectomy upon a patient who had such serious cardiac trouble that it was deemed unwise to ad-

minister an anæsthetic. Local anæsthesia along the line of the incision was maintained by a spray of chloric ether. The writer has demonstrated the possibility of operating in this manner in two other cases of renal and cardiac trouble—one operation being an abdominal hysterectomy, the other a difficult ovariectomy.

CHRONIC OÖPHORITIS.

WINTERITZ (abstract of monograph in *Centralblatt für Gynäkologie*, 1893, No. 31) gives the results of his studies on this subject, extending over a period of ten years at the Tübingen clinic, where he estimates the affection as comprising ten and one-half per cent. of all gynæcological cases.

As regards etiology, he finds that the principal factors are injuries during menstruation, puerperal troubles, gonorrhœa, masturbation, and infectious diseases.

The following anatomical changes were noted: Thickening of the cortex with connective tissue, hyperplasia of the parenchyma, disappearance of the follicles, hyaline degeneration of the intima of the vessels, or obliterating endarteritis. Round-cell infiltration was rarely present as in true inflammation of the ovary.

As regards palliative treatment, improvement is rarely, a cure almost never, obtained. Oöphorectomy, however, should be regarded as the last resort, and is indicated only in cases of excessive menorrhagia, or rarely in those patients who have been treated for a long time without benefit, and "when nervous symptoms are absent."

OVARIAN TUMOUR WEIGHING 111 POUNDS.

Dr. W. W. KEEN (*Western Med. Report*, August, 1893) reports the case of a child of 15, whose weight was 68 pounds, and in whom an ovarian tumour developed in two years. During this time it was three times tapped. The operation was performed without difficulty; the solid mass removed weighed 27 pounds, and the fluid 84 pounds, making

a total of 111 pounds. After the removal of the tumour, the abdominal cavity looked like that of an eviscerated cadaver. The liver was pushed to the right and back, and the stomach to the left, until the whole of the diaphragm was exposed, as were the bodies of the vertebræ. After suturing, the abdomen was excessively scaphoid; the patient recovered well. "I have not had time to search through the literature of ovariotomy, but so far as my memory serves I have never known a larger tumour removed from a child. It weighed just one and a-half times as much as the patient. Her recovery has been most satisfactory, in spite of a very poor and capricious appetite. The chief lesson the case teaches is the value of an exploratory incision in every case of doubt. Had this been done, instead of a mere tapping in October, 1891, when the tumour was much smaller, the prognosis would have been much more favourable, and she would have been spared a year and a-half of needless suffering. What seemed to be a most formidable operation really proved to be almost a simple one, the adhesions and the pedicle being most favourable for the speedy recovery which has ensued."

It would perhaps have been more appropriate to have described the above operation as the removal of the child from the tumour.

DERMOID CYST CONTAINING SUPERIOR MAXILLA WITH SIXTEEN TEETH.

Dr. R. L. DICKINSON (*Brooklyn Medical Journal*, August, 1893) removed this specimen from a young woman 24 years old. There had been one severe labour—breech—and peritonitis had followed. The bladder was found to be adherent anteriorly; eight inches of small intestine were matted down solidly on top of the tumour, and the cæcum and appendix glued fast to it. The neoplasm itself was felt only through the bladder, the cæcum, and small intestine. The tumour was removed with only slight injury to bladder and intestine, both of which were, of course, repaired. The growth proved

to be a dermoid, and contained the superior maxillary bone with sixteen teeth. The patient rallied well, but died of delayed shock in 50 hours. The contents of the sac were putrid, and the bones partly broken down by caries. Whatever other material the cavity contained had been broken down into pulpy rottenness. Dr. Skene thought "the case to be unusual in one particular, and that the extraordinary development of the maxillary bone or bones and teeth, and the size of the tumour. When such specimens often are found, the sac is generally much larger. One would expect to find such large bones in a sac extending up to the diaphragm. Probably the growth of the sac was arrested by the inflammatory trouble set up there. That may account for the age of the tumour and the size of the sac, with this bone development so much older than the size of the sac would suggest. Even if the diagnosis of dermoid cyst was made, no one would expect to find any such fine teeth. The fat must have been there and been transformed. You get adipose tissue, hair, toe-nails, teeth, bones, mostly maxillary, but I do not think you get lungs, liver, muscles, and so on. The degree of development varies very much. That is the most extraordinary teeth and maxillary bone development I ever saw. I saw one that weighed 45 pounds where the teeth were present, a number of them, and one-half of the maxillary bone; in another I saw a tangle of hair. They vary greatly in the degree of development. I never saw two alike—that is to say, the extreme development of bones and teeth here, and the utter absence of hair, will be met by another specimen with an immense long tangle of hair and perhaps no teeth at all."

DERMOID TUMOUR CONTAINING BONE AND TEETH.

KAMERER (*Univ. Med. Jour.*, June, 1893) reports a dermoid cyst of the ovary which contained, in addition to the usual contents of such cysts, a mass of bone, which contained a clump of irregularly placed teeth, including examples of incisors, canines, bicuspid, and molar varieties.

SARCOMA OF THE OVARIES.

THEILHABER (*Münchener med. Wochenschrift*, 1893, No. 28) reports a case of round-celled sarcoma of both ovaries, in a woman aged 24, which developed at the beginning of pregnancy, but was not recognised until a week after the patient had aborted (at the third month). She was not operated upon, but died a fortnight later of pleurisy and pericarditis due to a large sarcomatous nodule in the mediastinum. As the patient had not been under constant observation, it was impossible to determine positively whether the nodule was a primary or secondary growth. Sarcoma of the ovary is quite rare (forming 0.016 per cent. of ovarian neoplasms according to Shröder), and is found most frequently in young subjects. The prognosis after removal is unfavourable.

COMPENSATORY HYPERTROPHY OF THE OVARY.

DR. AIRSTOFF (*Lancet ; Med. and Surg. Reporter*), in his dissertation on the compensatory hypertrophy of the ovary, the materials for which he obtained from the pathological department of the St. Petersburg Medico-Chirurgical Academy, under Professor Ivanoski, states that, according to his observations, when one ovary has been removed the other one increases in size and weight, the follicles coming more rapidly also to maturity and withering more quickly, besides which the medullary layer increases. In observations made on rabbits it was found that the hypertrophic process had begun within two months after the operation, and that at three or four months it had nearly doubled the size of the remaining ovary. After the fifth month the remaining ovary became smaller again.

OVIOTOMY ON PATIENTS OVER SEVENTY YEARS OF AGE, BY AMERICAN OPERATORS.

MARY SHERWOOD (*Medical and Surgical Reporter*, July 8, 1893) has collected statistics of 100 ovariectomies performed upon aged patients, and of this number 38 are placed

to the credit of American surgeons. Thirty-three of these recovered, giving a mortality of 13.1, while the mortality, as based on the complete list of 100 cases, was 12 per cent. It is interesting to note that this list of 38 cases includes :—(1) The earliest case found in the literature of the subject; (2) the oldest case on which the operation was successfully performed; (3) the greatest number of cases reported by a single operator. Only 9 cases are recorded as simple and uncomplicated, while 23 cases were made difficult and more dangerous by the presence of adhesions, which were so numerous in two cases that the removal of the uterus was made necessary.

There is no evidence that either ovary is the more frequent seat of disease. Eighteen patients recovered from the operation, and are reported as living at the beginning of the present year. Nine patients were alive and well one to three years after, and seven cases are still living seven to ten years after operation. In only two cases was the report made less than a year after operation. Evidently, age seems to have but slight bearing upon the results of ovariectomy.

PAPILLOMATOUS TUMOURS OF THE OVARY.

J. WHITRIDGE WILLIAMS, M.D. (*Johns Hopkins Hospital Report*, vol. iii, Nos. 1, 2, 3) states the following conclusions:—

(1) Most papillomatous cystomata are not developed within the broad ligament; the majority of papillomatous growths being of other than ovarian origin.

(2) The growths are derived either from the Graafian follicles or germinal epithelioma; their origin from relics of the Wolffian body or from the tubal epithelium, while possible, has yet to be demonstrated.

(3) As the origin of both the ciliated and non-ciliated papillomatous growths is identical, we consider that there is no justification for considering them as constituting two distinct classes of growths.

(4) Polymorphism of the epithelium is not characteristic of ciliated papillomatous growths.

(5) The formation of psammoma bodies is not pathognomonic of the ciliated papillomatous cystomata, for they occur in the superficial and non-ciliated varieties, and also in the normal ovary and tube, as well as in other parts of the body.

(6) The superficial papillomata are of far more frequent occurrence than is generally supposed.

(7) They are very closely related to the papillomatous cystomata, and are always derived from the germinal epithelium.

(8) All varieties of papillomatous growths of the ovary have a marked tendency towards the formation of secondary growths. The majority of secondary growths are produced by mere extension of the growth by continuity of tissue or by implantation of small particles of the tumour upon the peritoneum. In rare instances true metastases may be formed.

(9) The papillomatous tumours possess a marked tendency to become malignant, and even the anatomically benign growths, in view of their tendency to the formation of secondary growths, are to be considered as clinically malignant.

(10) The results of operations, even after the formation of secondary growths upon the peritoneum, are quite satisfactory.

INTERNAL CROSSING OF THE OVUM.

VEIT (*Zeitschrift für Geb. u. Gyn.*, Band xxiv., Heft 2) discusses at length the theories of Wyder, Pestalozza, and Schäffer with regard to the supposed passage of the ovum from one tube into the uterus and across its cavity into the opposite tube. In order that this should be proved, it is necessary, he thinks, to demonstrate conclusively the fact that the ovum is found in a tube the distal end of which has been entirely occluded by an inflammatory process occurring *before conception*. This point should be carefully noted in every operation for ectopic gestation. He believes that retained

chorionic villi within the tube may give rise to persistent hæmorrhage, just the same as in an incomplete uterine abortion. In order that fluid blood may accumulate within the tube, it is necessary that either the distal end should be occluded, or that it should be closed by a bend due to surrounding inflammatory adhesions. If the ostium abdominale is open, and the tube is distended with blood, *ectopic gestation is always present*; the blood is then coagulated, and the clot is attached at one point on the inner wall of the tube. The blood is found to be fluid only at that stage in the tubal abortion at which the ovum has just been cast off and fresh hæmorrhage is going on from the chorionic site. To this rule there is no exception save in the case of malignant disease. From an examination of his own specimens the writer arrives at the conclusion that in cases in which it is supposed that the ovum was discharged through the opposite tube into the uterus, and made its way subsequently into the other tube, it will be found that a small opening existed in the fimbriated end of the tube which was thought to be previously occluded, through which impregnation probably took place. Wyder's theory that, because an ovum has been found in the uterine end of an occluded tube, it was in the process of crossing over from the opposite side, is not tenable. This internal crossing of the ovum may be erroneously inferred in the following conditions: 1. When pregnancy occurs in a tubo-ovarian cyst, either in the tube or in the cyst. 2. When the ostium abdominale is closed during pregnancy. 3. When it is difficult to find the fimbriated extremity. 4. When the distal end of the tube has become occluded after rupture of the ectopic sac, by the retention of remains of the product of conception.

The writer adds some interesting observations bearing upon the site of impregnation. Wyder states that impregnation occurs at the fundus uteri, the ovum being carried downward by the motion of the tubal cilia toward the uterine cavity, while the upward motion of the cilia in the endometrium both assists the spermatozoa to move toward the

fundus, and prevents the ovum from sinking downward to the cervix. Veit has extirpated three ectopic sacs, and found the cilia in the affected tube still in motion, while in other similar cases he has noted the presence of cilia. The theory that the cilia must be destroyed by previous inflammation before the impregnated ovum can remain in the tube has been generally adopted; but in reality it is only necessary that the progress of the ovum should be so slow that it is delayed in the tube until it is too large to pass into the uterus.

GENERAL.

THE USES OF PETROLEUM IN GYNÆCOLOGY, &C.

Petroleum, as a local application, is being employed with success by Dr. DESPRES in his hospital practice. In vaginal injections, as a disinfectant in cases of uterine cancer or the different forms of vaginitis, kerosene has given satisfaction. It is also employed in cases of cold abscesses and cancrroid tumours in the form of compresses as well as a topical application in diphtheria.

SALIPYRIN IN MENORRHAGIA.

According to ZURHELLE, salipyrin, in doses of 15 grains, repeated three times daily for a few days previously to the menstrual period, is a valuable resource in menorrhagia. It diminishes the quantity and duration of menstrual flow, in cases in which its excess is not dependent on grave organic affections. It also exercises a favourable influence on any accompanying dysmenorrhœa. — *Mercredi Med.*—*Sheffield Med. Jour.*, July, 1893.

EFFECTS OF MORPHINE ON THE FEMALE ORGANS.

PASSOWER (*Centralblatt für Gynäk.*, No. 2, 1893; *Brit. Med. Journ.*) recently read a paper before the Obstetric Society of St. Petersburg, in which he related the course of two cases under his own observation. It confirmed an opinion, already supported by the observation of others, that

the abuse of morphine eventually leads to atrophy of the female organs. Passower's cases were of the ages of 29 and 30. One consulted him on account of the resultant amenorrhœa. The drug was discontinued, and catamenia reappeared. The patient took to morphine again, and straightway the menses ceased. Between 1887 and 1889 Passower observed the case; sixteen pounds' weight was lost, and the subcutaneous fat disappeared. The vulva atrophied. The measurements of uterus during that period ran as follows: December 1887, $3\frac{1}{2}$ inches; May, 1888, $2\frac{1}{2}$ inches; November, 1888, $2\frac{1}{2}$ inches; April, 1889, $2\frac{1}{4}$ inches; September, 1889, $2\frac{1}{8}$ inches, and July, 1890, $1\frac{1}{2}$ inches. The atrophic process no doubt began in the ovaries and spread to the other parts of the genital tract. This is evident from the early appearance of amenorrhœa and the latter atrophy of the vulva, and also from physiological evidence; thus the submaxillary glands atrophy in dogs subjected to doses of morphine. How much of the drug can be taken without danger of these ill effects is entirely an individual question.

CHLOROSIS AND POST-PARTUM ANÆMIA.

SCHMIDT (*Centralblatt für Gynäkologie*, 1893, No. 26) in a study of the effects of chlorosis on the female organism during the time of reproduction, relates the following interesting facts. Out of 148 women, 39 gave histories of chlorosis, more or less severe, during their younger years. Great care was taken to exclude all those with doubtful chlorotic histories. Of these 39 cases, the conditions at the time of childbirth were, as regarded health: 3 were in very good condition; 17 good; in 10 the health was sufficiently good for the needs of mother and child, and 9 were in poor state of health. In 30 of the above no traces of the former anæmia could be seen. Those belonging to the class represented by nurse maids, maid servants, &c., who by their mode of life are much in the fresh air and light, with bodily exercise, generally become strong and healthy wives; females of the class who, in the earning of their bread, are compelled to sit all day, later become women of a sad, dejected type.

With a single exception all the patients with early chlorosis could nurse their children.

In 37 cases recorded (3 cases twins) the birth occurred spontaneously, once the forceps was applied, for weak pains; in this case there was considerable post-partum hæmorrhage. Asphyxia occurred 3 times. No lowering of the contractile power of the uterus from the early chlorosis could be found, which is contrary to the opinion of Winckel. Of the above 39 cases, 41 children were born; twins occurring once, twice the children were macerated, the average weight of 27 of the children was 3277.4 gm. The writer concludes that early chlorosis does not of necessity influence the chances of a woman to have healthy children.

ELECTRO-THERAPEUTICS IN GYNÆCOLOGY.

Drs. MANDL and WINTER (*Weiner klin. Woch. ; Revue Internat. d'Electrotherapie*) give an account of the results obtained by electro-therapy in ninety-four women treated at the outdoor clinic of Chrobak. They had recourse indifferently to faradisation and galvanisation.

Faradisation by séances of fifteen and twenty minutes calmed the pain in cases of chronic inflammation of the pelvic organs—para- and perimetritis; the palliative result was transitory, lasting two to four hours.

Intra-uterine electro-therapy, practised with all the known antiseptic precautions possible, is shown to be harmless. The sound need only be introduced into the uterine cavity under control of the sight. The current ought to have such an intensity that its course will cause no pain. It is better to be governed by the individual susceptibilities of the patients than trust to the indications of the galvanometer to determine the intensity of the current. For the inactive electrode, preference is given to clay applied to the abdomen. None of the women treated at Chrobak's clinic manifested an extraordinary intolerance to the employment of electricity, which is the opposite to what is sometimes observed. In

two cases a current of 250 milliampères was passed with only a slight burning sensation of the skin.

The cases treated are divided as follows :—

(1) Forty-four cases of endometritis with atypic menorrhagia during the month. The number of séances has varied from three to seventeen. The effect of intra-uterine galvanisation differs from other cauterisations for the reason that a certain quantity of tissue decomposed into gas acts upon the neighbouring intact tissue, and chars it so that only a minimum quantity of tissue is transformed into a solid eschar. The slight thickness of this eschar, its chemical constitution, the small intensity of the mechanical lesion, are of such a nature that the reactional phenomena are slight.

Intra-uterine galvanisation should not be employed except in cases of profuse metrorrhagia. The séances should occur at intervals of three or four days, lest too active reactional phenomena be provoked by the absorption of the necrobiotic tissue. This method of treatment has the advantages of being painless, of exact dosage, and of being applicable to patients who are not hospitalised. In cases of chronic inflammation of the adnexa, it is necessary to employ only feeble intensities. The recent inflammation of the adnexa constitute a contra-indication. When the treatment is instituted with caution there is no fear of producing sterility.

(2) Seventeen cases of myomata, of which fifteen only have been treated for a sufficient length of time (282 seances). The intra-uterine galvano-caustic is contra-indicated in acute inflammation of the adnexa, cystic degeneration of the myoma, and the rapid growth of the tumour. When account is taken of these contra-indications, amelioration of the conditions is more or less pronounced ; diminution of the hæmorrhages, relief of the general condition, and greater mobility of the tumours. In four cases diminution in the size of the myomata was noted ; it is true that three of these cases were near the menopause.

(3) Electricity was employed with success in three cases

out of four of dysmenorrhœa, and in one case out of two of subinvolution uteri.

(4) The results have been less satisfactory in eleven cases of amenorrhœa and in twelve cases of pelvic exudation, para- and perimetritis, chronic inflammation of the appendages. Rapid absorption of pelvic exudation was never observed.

(5) Amelioration was obtained in a case of vesical paresis; in a case of nocturnal incontinence of urine; in a case of pruritus vulvæ; and in a case of ovarian neuralgia.

MEANS FOR THE PREVENTION OF CONCEPTION.

FERDY (*Centralblatt für Gynäkologie*, No. 22, 1893), in considering the anatomical and physiological facts in regard to coitus, states as a result of his subjective observations, that the external orifice of the uterus exerts a leech-like suction upon the glans penis during the orgasm. He believes that the congressus interruptus, which exerts an injurious influence upon the nervous system, especially in man, plays a large part in the etiology of cervix carcinoma. He regards the use of the fish-bladder condom and the occlusive pessaries as the safest and least injurious of all the means of preventing conception.

RECTAL.

GONORRHŒA OF THE RECTUM.

Dr. F. BYRON ROBINSON states (*Med. Age*, June, 1893) that gonorrhœa is sometimes the cause of spermatocystitis or vesiculitis in the male, and this he has proved by the dissection of a number of vesiculæ seminales in different mammals and men. He also holds that gonorrhœa in the female leads to stricture of the rectum through the invasion of its mucous membrane by the gonococcus, which destroys its epithelium and paves the way for ulceration. Females are the most liable to become infected in the rectum by gonorrhœa, and it is estimated that stricture of the rectum is ten times as frequent in the female as in the male.

MAMMARY.

THE EFFECT OF COFFEE ON THE LACTEAL SECRETION.

Dr. ALICE MCLEAN says (*Med. and Surg. Rep.—West. Med. Rep.*, July, 1893) that in an institution under her charge she found that the effect of the administration of coffee to nursing women was a scarcity of breast milk, so much so, that artificial feeding had to be resorted to. She suggests that in the lying-in period and at the time of weaning, when the breasts secrete more milk than is wanted, and when the mother is abstaining from fluids, her thirst might be quenched with coffee with good results.

HYPERTROPHY OF THE MAMMARY GLANDS.

SCHAEFFER (*Centralblatt für Gynäkologie*, 1893, No. 22) reports a case of hypertrophied mammæ in a girl fourteen years old. Amputation was performed. The right breast was found to weigh 3,900 gm., the left 3,500 gm. The hypertrophy was due to fibrous increase of the gland lobes.

OBSTETRICS.

THE DIFFERENTIAL DIAGNOSIS OF EARLY ECTOPIC GESTATION.

Dr. HENRY C. COE (*N. Y. Polyclinic*, vol. i., No. 1) thinks that the ease with which the diagnosis can be made has been exaggerated. He himself has opened the abdomen, and found normal pregnancy and a cystic ovary in a case in which the symptoms led him to confidently expect that he had to do with a tubal pregnancy with impending rupture. Unless the patient has been for some time under observation, and is examined under an anæsthetic, it is frequently difficult, and often impossible, to distinguish early ectopic gestation from a simple abortion with previous ovarian trouble, or with accompanying enlargement of one ovary or tube. The classical symptoms of ectopic gestation before rupture, as read by Tuttle, are pain and some alteration in the character of menstruation. He diagnosed but one in a series of five

unruptured tubal pregnancies. Dr. Coe does not believe that 95 per cent. of the cases can be recognised in an early stage. Probably the condition which is most likely to be mistaken for ectopic gestation is early abortion, complete or incomplete, before the tenth week, with an enlarged tender ovary, especially in a nervous, hyperæsthetic patient.

Dr. Coe deduces the following conclusions :—

(1) The symptoms of early ectopic gestation are often obscure and ill-defined, even after rupture into the broad ligament, possessing features in common with dysmenorrhœa, associated with irregular menstruation and incomplete abortion.

(2) The physical signs are frequently not characteristic, since the same reflex mammary and gastric disturbances, with enlargement of the uterus and accompanying extra-uterine tumour, may exist in sub-involution or early normal pregnancy, with pre-existing enlargement of the ovary or tube. In this connection it is well to bear in mind Smolsky's observations, *i.e.*, that at about six weeks the ectopic sac is the size of a pigeon's egg ; at the end of the second month, the size of an English walnut ; at two and a-half months as large as a hen's egg ; at three months the size of the fist.

TRAUMATIC DETACHMENT OF THE PLACENTA : FÆTUS BORN ALIVE.

ODEBRECHT (*Centralblatt für Gynäkologie*, No. 30, 1893) reports a case in which serious damage to the placenta did not prove fatal to the child. A VIII-para, believing herself to be nine weeks from term, fell from a ladder, quite a distance to the floor below, striking her abdomen. Pregnancy continued unaffected till five weeks later, when a quantity of pale red fluid escaped from the vagina. Pains of labour set in, and were accompanied with the discharge of more blood-stained water. The membranes presented, and at the end of four days a live child was born without aid. The placenta followed half-an-hour later after the application of gentle

pressure. Odebrecht describes the placenta, which he exhibited before the Obstetrical Society of Berlin, as follows:—Two-fifths of its substance showed signs of prolonged compression, evidently from effusion of blood between the placenta and the uterus. That the patient was able to discharge her household duties for a month after the injury which detached part of the placenta, Odebrecht regards as remarkable. Still more interesting is the fact that the child lived so long when so much of the placenta was disabled, and indeed that it was born alive after all.

OBLIQUITY OF THE UTERUS IN VERTEX PRESENTATION.

VALLOIS (*Archives de Tocologie et de Gynécologie*, June, 1893) does not attach serious clinical importance to lateral deviations of the uterine axis, at least not in vertex presentations. He does not believe that lateral inclination is so common as is usually taught, and the proportion of the deviations to the right is far higher than text-books usually indicate. The frequency of right obliquity can neither be explained by the shape of an individual uterus nor by decubitus on the right side. The obliquity may alter completely without any change in the foetal position, or in the decubitus of the mother. On the other hand, change of foetal position does not cause obliquity, which, moreover, cannot be attributed to uterine contractions. During labour, the obliquity usually persists or increases. Vallois, however, notes a few cases where it has been rectified or even changed. In the early days of childhood, the uterus either remains oblique or falls to the median line. In cases under Vallois' personal observation, even the most pronounced lateral deviations did not cause any difficulty during labour, which they hardly, if at all, retarded. Attempts to correct the obliquity are useless, and often fail. Most assuredly, right obliquity of the uterus does not explain why the foetal head presents most frequently in the left occipito-anterior position.

HÆMOPHILIA AND PARTURITION.

WEHLE (*Centralblatt für Gynäkologie*, No. 29, 1893) discussed hæmophilia in connection with parturition before the Dresden Gynæcological Society at their May meeting. A case occurred under his own observation, the notes of which are as follows:—The patient, a primipara, aged 33 years, developed rigors after having been ten hours in labour. The membranes had ruptured one hour previously; the foetus was presenting in left occipito-anterior position at the outlet. Flooding had set in. Wehle administered morphia and waited one hour, when he delivered the woman by a single traction with the forceps. The perineum and clitoris were slightly wounded, and bled freely, as did several abrasions. The wounds were sutured, and the placenta delivered by expression after severe flooding. There were noticeable three defects upon its surface. The uterus was douched with hot water, and while this was being done the three missing pieces of placenta were removed. After the administration of ergot the uterus contracted, and the flooding ceased for a while, but hæmorrhage began from the small abrasions, and deeper sutures had to be introduced. Then the flooding set in again, and the uterus was plugged with iodoform gauze. A laundress's iron, placed on the abdomen where there was a gap between the recti, served well to ensure counter-pressure. The vagina required firm plugging, as the sutured wounds and the tracks of the sutures bled freely. The patient was in a state of collapse, but rallied in two hours after taking stimulants. On the third day the vaginal tampon was removed, and on the fourth day the uterine plug. For six weeks bright red blood occasionally trickled away, and five weeks later she was still very anæmic and weak. In the child the stump of the cord bled, though twice ligated. Wehle found that the patient's father had been subject to epistaxis, and died at the age of 42 of cerebral hæmorrhage. One of his brothers was also troubled with epistaxis. One of the patient's sisters had flooding for a whole day when 18, severe flooding after the birth of her

third child, and later suffered from epistaxis. One brother, also subject to nose bleeding, was seized when 17 with pains in the joints, and died of extensive subcutaneous hæmorrhages. The patient herself, when 2 years old, bled freely from the genitals after a fall. When 12, she bled from the alveolus for a day after extraction of a tooth, and she had suffered bleeding from the gums during her pregnancy. There was no history of syphilis or nephritis; no atony of the uterus, nor laceration of the cervix.

The discussion turned upon the diagnosis of hæmophilia from syphilis. Mänuel saw a case of fatal epistaxis in an infant aged 3 days, notwithstanding careful plugging. The father had suffered from a hard sore. Meinert stated that in a case where the stump of the cord bled for four days, the father was also syphilitic. Marschner recorded three labours where there was great flooding during the third stage without any anatomical explanation. Leopold attributed flooding in Marschner's case to atheroma of the walls of the vessels in the uterine mucous membrane. Where there was no hereditary history the obstetrician should not be too ready to attribute bleeding to hæmophilia. Mothers with syphilis often flooded in the third stage, and syphilitic children were subject to bleeding.

SYPHILIS AND PREGNANCY.

FOURNIER (*Canada Medical Record*, August, 1893) believes that two of the most important factors in the diagnosis of hereditary syphilis in a family are great frequency of abortion and high infantile mortality. Abortion is least frequent when the father alone is syphilitic, more frequent when the mother alone is syphilitic, and most constant when both parents are affected. In the latter cases as many as nineteen abortions have been known to occur. Fournier attended a family in which the first three children were all born at term, and all robust. Then the father contracted syphilis, and his wife became infected; she aborted three times in succession.

Fournier found that at the Lourcine Hospital 145 out of 167 of the children born of syphilitic mothers died in the institution. Collecting trustworthy statistics of 441 cases reported elsewhere, 100 children whose mothers were syphilitic survived infancy, while 341 died. It is noteworthy that out of the 341 that died, 335 perished within their first year; only six died later. Out of nine children in a syphilitic family, only two are likely to survive their first year.

UNCONSCIOUS DELIVERY.

LE BLOND (*Journal de Médecin de Paris*, July 30, 1893) related at a meeting of the Medico-Legal Society of Paris, in July, the following case:—A woman, aged 27, illegitimately pregnant, who had been deserted by her lover, was seized with slight colicky pains, but continued to work. During the following night she was attacked with still more severe pain. Thinking that defæcation would relieve her pains, she sat upon her chamber utensil, and, upon straining, gave birth to a live child. She was greatly alarmed, but cut the cord with scissors, wrapped the infant in a cloth, and, proceeding downstairs, communicated to the people in the house what had happened. Violent flooding occurred; the cord had not been tied. Le Blond saw the case early the next morning, found the placenta still in the vagina, and extracted it. The mother and child did well. Had the child died the mother would have been very strongly suspected of murder, especially if she had attempted to defæcate in a public privy, in which case the child would have been almost inevitably killed.

THE INFLUENCE OF CHLOROFORM UPON THE COURSE OF NORMAL LABOUR AS SHOWN BY THE TACHADYNAMOMETER.

DANHOFFT (*Arch. für Gynäkologie*, Bd. xlii., Heft 2; *Am. Journal Obstetrics*, June, 1893), administered chloroform in various degrees to five cases of normal labour, and noticed

its influence upon the expulsive force of the uterus and abdominal muscles, as shown by a carefully constructed physiological apparatus. The conclusions reached are in substance the following :—

(1) The administration of chloroform, even in diminutive doses, exercises a retarding influence upon the progress of labour. The muscular pressure sinks to one-half of the amount of that present before the administration of the anæsthetic. In eight observations the average figures were 13 : 7.

(2) The expulsive force of the uterine contractions steadily diminished during the exhibition of chloroform.

(3) The labour pains, besides being weaker, are also more irregular during a slight anæsthesia. During deep anæsthesia the intervals between the pains are longer, and all the pains are diminished in strength.

(4) The pains increase immediately after discontinuing the anæsthetic. The expulsive force of the contractions after stopping the chloroform, compared with the force just before its administration, is, as expressed in figures, 2 : 3.

(5) The labour pains generally continue diminished in power for some time after discontinuing the chloroform. In one case they had resumed their normal intensity in ten minutes, while in two other cases two hours had expired.

(6) If the action of the abdominal muscles is only slight, this action is checked entirely by a superficial anæsthesia, but soon reappears after the stopping of the chloroform.

(7) The action of the abdominal muscles continues, but in diminished force, during superficial anæsthesia, if before the exhibition of the chloroform it was vigorous in character.

(8) Deep anæsthesia abolishes entirely the action of the voluntary muscles.

(9) The intervals between the pains become longer immediately after chloroform is administered, and the labour pains, besides being less intense, decrease in number about twenty-five per cent. These carefully conducted experiments show that chloroform, no matter in what degree it is administered,

exercises a retarding influence upon the progress of labour. The expulsive forces are lessened, and there is no corresponding diminution of the resistance.

TREATMENT OF ECLAMPSIA.

In a paper read before the Paris Academy of Medicine, M. Charpentier (*Occidental Medical Journal*, May, 1893), presented the following conclusions: (1) Every pregnant woman whose urine gives the slightest indication of albumin should be immediately put upon an exclusive milk diet. This regimen is the preventive treatment *par excellence* of eclampsia; (2) When a patient attacked by eclampsia is vigorous and cyanotic, bleeding from four to five hundred centigrams is indicated, and should be followed by the administration of chloral. She should be put upon a milk diet as soon as possible; (3) When the patient is delicate, the cyanosis less marked, the convulsions less frequent, chloral alone may be sufficient; (4) Labour should be allowed to begin spontaneously, and to pursue its natural course whenever possible; (5) If the contractions are insufficient, delivery may be accomplished by version, or by the forceps, if the child is living; if dead, by cephalotripsy, basiotripsy or cranioclasia; (6) Interference should be postponed until the parts are completely dilated, so that the operation may be performed without injury to the mother; (7) Labour should be induced in those cases only in which medical treatment has completely failed; (8) Cæsarean section, or incisions of the cervix for the purpose of inducing labour, should never be attempted.

In the discussion on the paper M. Guénot believed eclampsia to depend upon the association of two elements—toxæmia and heightened reflexes. Many cases in which reflex influences are the preponderating cause are relieved by delivery; others suffer from genuine toxæmia, and die in spite of all treatment.

There is another class between these two in which treat-

ment may be very efficacious. Unfortunately the symptoms are not easily differentiated. Chloroform is an important remedy when the convulsions are caused by reflex action, but its prolonged use may be dangerous when they are due to toxæmia. Light, noise, and cutaneous irritation should be avoided, and Guénot does not recommend blisters, leeches, or bleeding. M. Tarnier has injected blood serum taken from the patients suffering from eclampsia into the veins of a rabbit, thus detecting the presence of toxæmia. It requires ten grams of normal human serum per kilogram to kill a rabbit, and when less is sufficient toxæmia exists. If the animal succumbs to three grams we may be sure the patient will not recover; but if eight are required prognosis is favourable. M. Jaccoud recommended milk as a preventive, and as a curative when the danger of convulsions is not imminent. As soon as the presence of albumin is recognised, milk diet should be instituted and maintained until after delivery, even when the symptom does not persist. Albuminuria is but a danger signal, and the danger may remain after the signal disappears. Systematic inhalations of oxygen, regulated according to the composition of the urine, should supplement the milk regimen. If the only change in the blood consists in the presence of albumin, thirty litres of oxygen should be inhaled during the twenty-four hours; but if organic depuration be lowered below the physiological minimum, the quantity must be doubled or even trebled. The patient should not be permitted to take cold, especially after the sixth month. If this accident occurs we may expect all the consequences of renal obstruction, and general bleeding is the only means rapid enough to re-establish permeability of the kidneys. Jaccoud prescribes as a preventive a mixed milk diet for all pregnant women, one litre and a-half every twenty-four hours during the first six months, and two litres during the last three, gradually decreasing the quantity until its final abandonment, six weeks after delivery.

CÆSAREAN SECTION FOR SHOULDER PRESENTATION.

HUBERT (*Revue Médicale*, January 31, 1893; *University Med. Jour.*, June, 1893) reports the following case: Patient, a V-para, was admitted to hospital in labour at term, the membranes having ruptured twenty-four hours previously. She gave a history of previous labours having been tedious, and was of small stature, owing to rickets. After being placed under chloroform, the left shoulder was found presenting in a dorso-anterior position, the left arm prolapsed, and the head high above the pubes. The uterus was firmly contracted and the child dead. Version could not be performed on account of the narrow pelvis. An attempt was made to decapitate, but as the blunt hook could not be properly adjusted it was abandoned. While endeavouring to get at the neck by pulling on the prolapsed arm the limb was torn off. Cæsarean section was, therefore, performed by Daudois and Hubert. The child was very large, and it was found necessary to introduce the hand through the incision into the uterus and extract by the feet. The placenta came readily away. Patient fully recovered.

DYSTOCIA CAUSED BY GREAT DISTENSION OF THE FŒTAL URINARY BLADDER.

An instance of this remarkable complication is given by SCHWYZER, of Zurich, in the *Archiv für Gynäkologie*, Band xliii., Heft 2 (quoted in *American Journal of Medical Sciences*). The patient was a multigravida whose labour-pains failed early in labour. A small amount of amniotic liquid had escaped, although she knew no reason for the rupture of the membranes. The abdomen was distended, and foetal parts could be felt with difficulty. The face was presenting, dilatation being complete, and a considerable tumour was felt upon the face. Closer examination revealed the fact that the head was too small for that of a foetus at term; the uterus showed well-marked fluctuation, and palpation was obscure. The

patient was taken to a hospital, and the forceps applied under anæsthesia. It was necessary to perform embryotomy, amputating an arm, opening the abdomen, and puncturing a collection of fluid. The free escape of a clear fluid, coloured with blood, followed. Examination of the body of the foetus revealed an enormous distension of the urinary bladder, causing a cyst, which had been the hindrance to birth. Among others, SCHROEDER reports (*Lehrbuch der Geburtshülfe*, 1891) twelve similar cases.

TUBERCULOSIS OF THE PLACENTA.

An example of this interesting and unusual condition is reported by LEHMANN in the *Deutsche medicinische Wochenschrift*, 1893, No. 9. The mother was aged 26 years, and complained of cough, headache, and general malaise. Six of her brothers and sisters died of pulmonary tuberculosis: The patient had borne a child after normal pregnancy, which perished of some disease of the head. Physical examination of the patient pointed to acute miliary tuberculosis or, possibly, malignant endocarditis. The patient perished a few days after coming under observation, but not until tubercle had been discovered in the choroid. *Post-mortem* examination revealed disseminated miliary tuberculosis in the mother. Examination of the body of the foetus failed to reveal lesions characteristic of acute tuberculosis. On the other hand, however, the placenta was found unmistakably tuberculous. An abundance of decidua cells was observed which were infiltrated with tubercle; also, in the chorion, the sheaths of the small vessels were found infiltrated with tubercle bacilli.

MIDWIFERY AT THE ROTUNDA AT DUBLIN.

Dr. W. J. SMYLY, Master, and J. H. Glenn, Assistant Master of the Rotunda, read (*Dublin Jour. of Med. Science*, July, 1893) before the Obstetrical Section of the Royal Academy of Medicine in Ireland, a clinical report of the hospital for three years ending October 31, 1892. During

this term, 3,602 women were confined in the hospital, of whom 37 died. The methods employed for the prevention of septic infection have been successful, inasmuch as of 2,403 women delivered during the two latter years of the period, not a single death occurred from this cause. Pupils on duty are allowed to examine patients abdominally, but only three students and one midwife vaginally. Previous to examination the external genitals are washed with soap and water, removing the soap with an irrigator and bathing with corrosive sublimate solution one in 500. The hands of the examiner are carefully scrubbed with soap and water and a strong nail brush, and then irrigated with carbolic lotion and bathed in corrosive sublimate solution. The internal genitals are douched out only in cases of purulent or foetid discharge, in cases of pelvic deformity, and where operative interference is required. After delivery a napkin, wrung out of corrosive sublimate solution, is applied to the vulva, but is not renewed. Night and morning each patient is given a basin containing water and a large piece of tenax, and is directed to wash herself in order to avoid the possibility of the nurse carrying infection from one patient to another.

The total number of labours was 3,602; there were 1,109 primiparæ; abortions, 107, equal to 1 in 33.7. As regards presentations, there were 24 cases of face to pubes, 10 face, 4 brow; 118 breech and lower extremities, and 6 shoulder and upper extremities. There were 46 cases of twins and 1 case of triplets. There was prolapse of the funis in 24 cases, placenta previa 17, that is 1 in 212; accidental hæmorrhage in 44 cases; post-partum hæmorrhage in 48 cases, and secondary hæmorrhage in 8 cases. Prolapse of the uterus occurred twice, rupture once, and rupture of cervix and vagina thrice. Lacerations of perineum occurred in 222 cases. The placenta was adherent in 35 cases. Premature labour was induced in 20 cases, version applied in 25, forceps in 107; perforation, 7 cases; cephalotripsy, 1 case; Cæsarian section 3 cases. There were 17 cases of eclampsia and 5 cases of mania; 3,290 children were born alive and 111 died in hospital.

There were 44 cases of accidental hæmorrhage, most of them of little consequence, but some very dangerous and five fatal. The accouchement force did not yield satisfactory results. The patients appeared to suffer from an extreme degree of shock, and the rapid emptying of the uterus in those cases in which it was employed seemed to determine the fatal issue. The treatment of such cases was as follows:—If the labour pains be absent, the vagina is washed out with hot antiseptic solution, 110° F., and then plugged and a binder applied. When labour pains set in, the membranes are ruptured and the foot is brought down, or where practicable, delivery is completed by forceps or perforator. There are cases, however, which do not admit of any delay, and yet the os is not sufficiently dilated to deliver immediately per vias naturales; in such cases Porro's operation is the only method which holds out a hope of saving the mother's life, and one such case was conducted with satisfactory result in the extern maternity by Dr. Bagot, the senior assistant.

Post partum hæmorrhage occurred in 48 cases. Perchloride of iron was used in 4 cases only; latterly plugging the uterus with iodoform gauze has acted as an efficient substitute. Transfusion of salt and water was employed in two cases, once hypodermically and once intravenous, but with only temporary benefit.

EXTRA UTERINE PREGNANCY WITH RUPTURE OF ABDOMINAL WALL AND PROTRUSION OF AN ARM.

Dr. WHITNEY reports (*Univ. Med. Jour.*, May, 1893) a case of Dr. G. Kimura, of Japan. The patient, aged 41, had six children, up to the age of 40 years all the confinements being easy. Last year, in April, menstruation ceased, the seventh conception having taken place. Up to December 28 following nothing unusual was observed, when, on that day, the abdomen suddenly became somewhat swollen, and pain in the back, accompanied with sudden hæmorrhage, appeared. There were no labour symptoms for about three days. When

first seen, the abdomen was found swollen as if from ascites ; heart-sounds muffled, foetal heart-sounds and movements not discernible ; uterus normal ; extra uterine pregnancy was the probable diagnosis. There were no prominent symptoms up to January 14, when the patient showed signs of wasting, with slight rise in temperature, pulse 100. Two inches above the umbilicus a small opening about the size of a fifty cent piece was observed, from which some thin, purulent foul-smelling matter, containing hair, was discharging. Upon further examination it became evident that the cavity contained the foetus, which was undergoing maceration. Three days after, a foetal arm, exposed to the shoulder, was found protruding from the orifice. Laparotomy was performed, and a fully-developed foetus was removed from the cavity after craniotomy had been performed. The position of the foetus was with head to the right side of the mother, with face down and legs to the left side. Ulceration and rupture of the abdominal wall were caused by pressure of left foetal elbow setting up inflammation which ended in ulceration, and an opening through which, when the amniotic fluid escaped, the arm engaged, and was then pushed out. The patient made a complete recovery.

SYMPHYSIOTOMY.

In a valuable statistical article Professor VARNIER (*Annales de Gynécologie et d'Obstétrique*, April, 1893), one of the editors-in-chief of the publication, reviews severally and in detail the full list of symphysiotomies published to date, sixty-eight in all, with an elaborate tabulation of all the cases. He sums up his article with four categorical questions and answers which seem fairly to establish the merits of the operation on a basis not of conjecture, but of fact. For the benefit of those to whom this most valuable article may not be accessible we give these four questions and answers below.

A deliberate, carefully calculated and well-executed symphysiotomy : does it, or does it not, bring in its wake, as was

insistently repeated at the time of Spinelli's publication, and of our own first efforts, a train of disorders, immediate or consecutive, affecting either the sacro-iliac synchondroses on the one hand, or the urethra and bladder on the other? Clinical experience, confirming in every particular experiments on the cadaver, answers No.

In pelves of a moderate degree of deformity, does the enlargement produced by section of the pubes suffice for the delivery of a living fœtus at term, or does it not? The facts answer, Yes.

Is the symphysis difficult to find, or to divide when found? No, since in 125 cases it has been missed in only 3, and in 2 of these cases where the saw was used the operation was then completed without further trouble.

Does the operation give rise to any hæmorrhage beyond a venous oozing easy to restrain within non-dangerous limits? No, nor does the unique case of Tellier suffice to invalidate the assertion.

EXTRA-UTERINE PREGNANCY.

A. E. AUST LAWRENCE, M.D., remarks (*Bristol Medico-Chirurgical Journal*, June, 1892): The whole diagnosis might be summed up in a few words. He should say that when a previously healthy woman missed one or more periods, and was taken with acute abdominal pain and fainting, and those symptoms recurred at short intervals, and the vaginal examinations revealed a retro- and peri-uterine hæmatocele, either extending or not up into the abdomen, it was imperative to open that abdomen without delay.

PUERPERAL ECLAMPSIA.

GREEN (*American Journal of Obstetrics*, 1893, No. 1) records the experience of the past eight years in the Boston Lying-in Hospital.

Puerperal eclampsia is believed to occur once in about five hundred pregnancies, and as this hospital cares for about

five hundred house patients yearly, eight cases of eclampsia would be its due proportion in the period covered by the report given; that during this time the hospital has received thirty-six cases, an average of four and a-half each year, is due to the fact that eclamptics are often sent to the hospital, who, but for this complication, would be attended in their own homes. In the treatment of ante-partum eclampsia, especially where the attack occurs before the fœtus is viable, the aim of the obstetrician of course is to restore the function of the kidneys without interrupting the pregnancy. The methods adopted in the treatment of ante-partum eclampsia are as follows: Ether is used to control the convulsions, chloral hydrate by the rectum as a nerve sedative between the attacks; morphine is never used. To excite the action of skin, the patient is placed in a hot-air bath, or in mild cases the use about the patient of heated plates rolled in blankets; for drugs, pilocarpine guarded by brandy and other stimulants to devoid depression. Unless the skin responds promptly and in a satisfactory manner, the eliminative action of the bowels is invoked with elaterium or croton oil, aided, if necessary, by enema. Digitalis and nitro-glycerin are used for their effect on the circulation.

A summary of the results of the writer's success are as follows: In a total of three cases in which the fœtus was non-viable, and in which there was no obstetric interference, the maternal mortality was 0 per cent.; foetal, 33 per cent. In a total of six non-viable cases in which labour was induced, the maternal mortality was 50 per cent., the foetal of course 100 per cent.

When the eclamptic has reached the period of foetal viability, there is much less incentive to delay obstetric interference. In the following group of four primiparæ, delivery was indicated in the interests of mother and child. In this group 75 per cent. of the maternal cases had a fatal termination, foetal mortality 50 per cent.

When the eclamptic seizure occurs during labour, it has been the practice of the hospital to deliver as soon as the

visiting physician could be summoned. It is not believed that the shock of operative interference under anæsthesia unfavourably affects the nervous system, but on the contrary, that the kidney more quickly recovers its functions after the uterus is emptied. Of inter-partum eclampsia, eight cases are recorded; of these 25 per cent. of the mothers and 25 per cent. of the children died. When the seizure first appears post-partum, the question of obstetric interference naturally does not arise. It may be thought by some that in the presence of symptoms during labour threatening a convulsive seizure it is well to terminate the labour artificially. While such a course is doubtless advisable in lingering labours, it has been the custom of the institution not to interfere when labour is progressing normally. Nervous symptoms are allayed, and the kidneys mildly stimulated. Fifteen post-partum cases are recorded, two being twin labours, maternal mortality $6\frac{2}{3}$ per cent., foetal 12 per cent. Of the latter one died from cerebral hemorrhage on the third day, two were non-viable.

It is thought by the author that post-partum hæmorrhage occurs in many eclamptics. Where not severe he has not checked it, as it relieved the blood tension and is favourable to the patients' recovery. Out of the whole thirty-six recorded, twenty-seven mothers were discharged well, nine died—total mortality 25 per cent.

The relation to maternal results of the number of convulsions in any given cases is as follows: The twenty-seven mothers who recovered had from one to twenty-five convulsions respectively; and the nine who died, from two to twenty-four; or, by averages, those who recovered had five and three-tenths convulsions, and the fatal cases ten and eight-tenths, or more than twice as many. The prognosis, however, in any case, appears to depend more upon the time when the convulsions occur, upon their severity and frequency, upon the length of the labour, the depth of the coma and the degree of kidney insufficiency, than upon the number of convulsions.

CÆSAREAN SECTION FOR OSTEOMALACIA COMPLICATED
BY PLACENTA PRÆVIA.

LODEMANN (*Centralblatt für Gynäkologie*, 1893, No. 24) reports the following case:—A V-para, thirty-nine years old, one abortion, distinct history of osteomalacia, being for one year unable to walk. By internal examination the outlet was found so contracted that two fingers laid together could not be withdrawn. Other striking deformities existed. The pubes had the typical beak form. Six days after admission pains began, accompanied by some hæmorrhage, which persisted several days, finally becoming so severe that the patient became pulseless. The bleeding was finally controlled by tampons.

When examined before operation, the lower borders of the ribs were found to rest upon the iliac crests. The uterus was drawn tightly about the foetus and reached three fingers' breadth above the umbilicus. Cæsarean section was performed with the help of one assistant. Disinfection accomplished on the external parts with 1-1000 sublimate solution, lysol 1 per cent. in the vagina. The uterus being incised longitudinally the foetus was extracted without difficulty. Hæmorrhage was slight. Placenta was found attached in the inferior segment of the uterus and on the posterior wall. The uterine cavity was filled with iodoform gauze and the organ closed over the same by two hands pressed upon it, eight catgut sutures being inserted to secure exact coaptation of the wound borders. Gauze was then withdrawn.

The infant was poorly formed and was dead when born. The puerperal period was favourable, the temperature rising only once; at the same time some odour being noticed in the lochia, an examination was made and a tampon was found to have been left in the vagina. Lysol was used as an antiseptic. Patient recovered. No antiseptic fluids were used in the abdominal cavity, the operation being done on the "dry" antiseptic principle.

A CASE OF SPONTANEOUS RUPTURE OF THE SYMPHYSIS DURING DELIVERY.

OEHLISCHLAGER (*Centralblatt für Gynäkologie*, 1893, No. 24) gives an interesting account of a twenty-years-old I-para who came under his care suffering from eclampsia. Albumin was found in the urine, and some œdema was present. Patient had within one year shown symptoms of rachitis. Forceps being applied to the head high in the pelvis, a somewhat strong traction was made. During the delivery, the symphysis ruptured with a distinct sound, and immediately showed a separation of perhaps 3 cm. After this the delivery was easy, and a living child was extracted. The eclampsia did not return. A strong bandage of leather was put around the patient's hips. No fever appeared, and in three weeks she was discharged. When last seen the two ends of the symphysis were about 1 cm. apart, but this did not interfere with the movements of the woman. The author knows of no similar case, either in his own practice or that of other physicians.

HÆMORRHAGIC DIATHESIS OF THE NEWBORN.

SCHAEFFER (*Centralblatt für Gynäkologie*, 1893, No. 22) reports two cases as follows:—

The first child died in twenty-eight hours. *Post-mortem* revealed bacteria, staphylococcus aureus and pyocyaneus, in the spleen, liver, and small intestines, also in the peritoneal and pleural effusions. By cultures the same bacteria were produced. It was supposed that their origin was in a large suppurating (syphilitic) abscess in the uterus.

In the second case a child fed on cow's milk died at the end of three days of typical melæna. An ulcer was found in the duodenum, from which, and also from the spleen, cultures of the bacillus lactis ærogenes were obtained.

THE PROPHYLAXIS OF BLENNORRHOEA NEONATORUM.

VON ERDBERG, in his inaugural address at Dorpat (*Centralblatt für Gynäkologie*, 1893, No. 24), considers the subject

of the various prophylactics against blennorrhœa of the newborn. He is of the same opinion as Von Brunner, that only those cases can be counted blennorrhœal in which the Neisser's gonococcus is found—an opinion which has been attacked lately by different authors. Infection at birth he considers of rare occurrence, and intra-vaginal infection cannot be found.

The average time of incubation of the disease was, in his cases, from two to five days, while later appearance of the attack was due to late infection. Notwithstanding the great success of the Credé method, and in contrast to many authors, the writer holds that patients coming with symptoms of hyperæmia, swelling and roughness of the palpebral conjunctiva, in which a sero-purulent secretion is found, present many difficulties in diagnosis to the ophthalmic surgeon. Silver nitrate he does not consider a specific against the disease; it is possible with it to set up an acute traumatic affection. The best fluid for instillation is a sublimate solution of the strength of 1-5000; it produces scarcely any reaction. Fully 75 per cent. of children born need no solution of any kind in their eyes. When the vagina previous to birth has been thoroughly disinfected, distilled water is all that is necessary to drop into the eyes. It might be well, as soon as the head is born, and before the shoulders appear, to carefully cleanse the eyes with a sublimate solution 1-1000, or iodtrichloride 1-4000, using a piece of cotton, and taking care that the eyes are not opened. This method should always be resorted to whenever it has been proven that the mother has gonorrhœa. It has been proven by Oppenheimer that mercuric bichloride in the strength of 1-30,000 is fatal to the life of the gonococcus. The writer includes a number of interesting statistics showing the comparative results of the methods of Credé, Kaltenbach, Küstner, and others. A most valuable and practical paper on this subject by Mr. Brudenell Carter appeared in *The Medical Times*, on January 13, 1894.

SYMPHYSIOTOMY FOR CONTRACTED PELVIS. RECOVERY
OF MOTHER AND CHILD.

BURNS and ATHERTON report (*Dominion Medical Monthly*, 1893, No. 1) what is presumed to be the first symphysiotomy in the Province of Ontario. The patient was a I-para, in her thirty-fourth year, was below middle height, but without deformity. The pelvic measurements appeared by manual examination to be normal, except the conjugate, which was less than three inches. Labour being delayed, an attempt at forceps extraction was made, but proving unsuccessful symphysiotomy was decided on. Section of the pubic joint was accomplished by means of a hernia knife; the ends of the pubic bones separated about two inches during the extraction of the foetal head, which had to be done with forceps. Some hæmorrhage was encountered, but was easily controlled. The perineum was torn to the sphincter, and was at once united by catgut sutures, silkworm-gut being used to close the external wound. The woman, after a slight rise of temperature on the third evening, did well. The foetal head was found to be large, the anterior fontanelle nearly closed.

PURPURA OF THE NEWBORN.

GLENN (*Transactions of the Royal Academy of Medicine*) reports the case of a first child of healthy parents; no history of syphilis; child asphyxiated when born. At birth the infant was covered with discrete hæmorrhagic spots, especially on the face, chest, and back. On auscultation a loud bruit was heard over tricuspid area. The child lived thirty-six hours. On *post-mortem* the spleen was found much enlarged and of a deep red colour, weighing forty-five grammes. Liver enlarged, deeply stained with bile, and firm to the touch. Kidneys, with the exception of a few superficial hæmorrhages, were normal. Stomach and intestines were covered with purpuric spots similar to those on the skin. Both viscera and parietal layers of the pleura were studded with hæmorrhages, the same condition being found in the pericardium. Foramen ovale open. All the remaining internal organs were hæmorrhagic.

RUPTURE OF THE UTERUS DURING PREGNANCY AND DURING LABOUR.

From the study of twenty-two cases of rupture of the uterus during pregnancy, Blind (*Centralblatt für Gynäkologie*, No. 5, 1893), draws the following conclusions: (1) The rupture was constant in the fundus; (2) Frequently there is found a marked thinning in the neighbourhood of the tear; (3) With relative frequency the point of rupture coincides with the placental attachment; (4) The tubal cornua, when they give attachment to the placenta, are relatively disposed.

Blind adds two cases of spontaneous rupture during labour to the seventeen cases found in the literature. The first was a 44-year-old XII-para. Buttock presentation, pains feeble. The child was extracted by a midwife; placenta did not follow. On examination coils of intestine were found in the uterine cavity. Cœliotomy was performed; the tear in the posterior wall of the uterus was sewed up. Uterus contracted well under injections of ergotin. There was no fever. Woman died on seventh day of ileus. Microscopical examination showed a shortening of the muscle fibres of the uterus. The ætiology of the rupture consisted in the deficient dilatation of the cervix, and insufficient hypertrophy of the muscle fibres.

The second case occurred in a 38-year-old XIII-para; child in transverse position; placenta prævia. Combined version was performed, and child extracted. Placenta followed in four minutes without hæmorrhage. Soon after, the woman went into collapse and died. There was a left-sided cervical tear. Here also there was recognised microscopically a deficient hypertrophy of the muscle fibres, and insufficient dilatation of the cervix was assigned as the cause.

OCCLUDED OS UP TO THE SECOND STAGE OF LABOUR, WHEN INCISION WAS MADE.

OPPENHEIMER (*Virginia Medical Monthly*, vol. xx., No. 1) reported, at a meeting of the Richmond Academy of Medicine and Surgery, the following case:—Patient was a

primipara, aged 17 years, in labour at term. The pains were good and vertex presenting. No os could be detected when the head engaged at the superior strait. The head was invested in a shiny membrane, which was slit up and the opening dilated, forceps applied and the child delivered. Oppenheimer suggested that some lesion of the neck of the womb after conception had probably caused entire occlusion of the os.

CÆSAREAN SECTION FOR SHOULDER PRESENTATION.

HUBERT (*Revue Médicale*, January 31, 1893) reports the following case:—Patient, a V-para, was admitted to hospital in labour at term, the membranes having ruptured twenty-four hours previously. She gave a history of previous labours having been tedious, and was of small stature, owing to rickets. After being placed under chloroform, the left shoulder was found presenting in a dorso-anterior position, the left arm prolapsed and the head high up above the pubes. The uterus was firmly contracted and the child dead. Version could not be performed on account of the narrow pelvis. An attempt was made to decapitate, but as the blunt hook could not be properly adjusted it was abandoned. While endeavouring to get at the neck by pulling on the prolapsed arm the limb was torn off. Cæsarean section was, therefore, performed by Daudois and Hubert. The child was very large, and it was found necessary to introduce the hand through the incision into the uterus and extract by the feet. The placenta came readily away. Patient fully recovered.

SUDDEN DEATHS IN CHILDBED.

EHRENDORFER (*Wiener medicinische Presse*, Nos. 10, 20, 1892) publishes two cases of sudden death after delivery:—The first case was that of a primipara, 22 years of age, who had experienced an easy labour, a lying-in without rise of

temperature, and had left her bed on the tenth day. On the eleventh day she fainted, and suffered with headache, vomiting, and tonic and clonic spasms of the upper extremities, with clonic spasms of the left leg. On the twelfth day there was an impairment of articulation and paralysis of the right arm. The pupils were dilated, and the right side of the mouth drawn down to the right. There was a bending of the body to the right. Death occurred seventeen hours after the initiatory fainting fit. After death, embolism and thrombosis of the superior longitudinal sinus was found, with thrombosis of the lateral sinus and left internal jugular vein. There were intra-meningeal hæmorrhages and incipient cerebral softening. No evidence of sepsis was discovered.

The second case was also that of a primipara, aged 22 years, who had been delivered instrumentally of twins, and manually of an adherent placenta. She died one hour after delivery. There was fatty degeneration of the heart, with dilatation of the right ventricle, purulent bronchitis, emphysema and other lesions. Despite this, pregnancy had proceeded satisfactorily to term.

HÆMORRHAGE IN THE NEW BORN.

LOCKHART, of Edinburgh (*Montreal Medical Journal*, vol. xxi., No. 10), reported the following case before the Canadian Medical Association, at Ottawa, September, 1892:—The child was 24 hours old, and had been delivered by axis-traction forceps, with comparatively little exertion. Its placenta, which came away easily, was found to be studded with calcareous particles. After birth, there were no marks of violence to be observed on its body. When seen by Lockhart, blood was coming from the anus, mouth and nose. From the anus it oozed continuously, while from the mouth and nose it came in gushes as though vomited. The blood was dark and venous, showing no tendency to clot. No lesion of the mucous membrane of the mouth could be

found. There were no cerebral symptoms nor paralysis. Its suction power was good. Despite energetic treatment the child died a few hours after.

Lockhart suggests, as a possible cause, some obstruction in the portal circulation preventing the return of blood to the heart, and causing an increased backward pressure. As a result, the gastric and intestinal capillaries would give way. He believes also that there was an altered condition of the blood, such as occurs in hæmophilia. This would account for the blood passed having no tendency to coagulate.

FŒTAL PLACENTAL CIRCULATION DURING PARTURITION.

CAVIGLIA (*Nouvelle Archives d'Obstétrique et de Gynécologie*, December 1892, January and February, 1893), after a series of careful observations, has arrived at the following conclusions:—

(1) Blood passes from the placenta to the child during the process of birth, through uterine pressure, retraction, and sometimes contraction.

(2) The constant positive pressure of the foetal vena cava superior forms a resistance opposed to the passage of placental blood by the foetal organism. This resistance is inferior, however, to the force acting upon the placenta, and is not sufficient to prevent the afflux of blood.

(3) Respiration takes away cardiac force and blood from the systemic circulation, hence it diminishes venous pressure and the special resistance referred to in the second conclusion.

(4) The afflux exists but to a slight extent in cyanotic asphyxia, owing to the high blood-pressure in the venous system of the child.

(5) The arrest of the foetal-placental circulation does not depend upon the diminution of pressure in the foetal arterial system, but on the occlusion of the placental capillaries by uterine pressure. When the placenta is expelled early, the pulsations may continue almost indefinitely.

(6) The passage of blood from the placenta to the new-born child often continues after the umbilical arteries have ceased to pulsate.

(7) During the first moments after birth the child's weight occasionally diminishes, on account of relaxation of the uterus. Too early ligature, therefore, involves the risk of removing from the child's circulation not only all the reserve blood, but also some of the blood necessary for the child at any given moment.

The last two conclusions are important in practical obstetrics.

A CASE OF SUDDEN DELIVERY.

LEBLOND, of Paris (*Abeille Médical*, August 1, 1892), reported the case of a servant girl who, several weeks before the expected termination of her pregnancy, awoke suddenly during the night with an intense desire to evacuate her bowels. With one single straining effort her child was expelled. Leblond does not state whether the woman was a primipara or multipara. Zeiss, of Erfurt (*Centralblatt für Gynäkologie*, No. 9, 1893), has observed a similar case of rapid expulsion in a delicate primipara at the end of her pregnancy.

A CASE OF PUERPERAL PERITONITIS TREATED BY HYSTERECTOMY; RECOVERY.

LAPTHORN SMITH, of Montreal (*American Journal of Obstetrics*, January, 1892), reports a case in which, after a difficult labour, some portions of the placenta were left behind. Two days later the patient developed a high fever. Smith opened the abdomen and, as the adnexa were healthy, removed the uterus. A piece of the placenta was found closely attached to the uterus. The uterine cavity was of a dark red colour, and a half-purulent fluid could be pressed out of the sinuses. The walls of the uterus were soft and fragile. The patient recovered.

CONCEPTION INTRA-PUERPERIUM.

KRONIG (*Centralblatt für Gynäkologie*, No. 19, 1893) described before the Gesellschaft für Geburtshilfe zu Leipzig the case of a II-para delivered in the Leipziger Frauenklinik who had conceived on the fourth day following the delivery of her first child. She was 22 years old when delivered of a healthy child. Four days later she was subjected to coitus. Following this was three months' abstinence from intercourse. At four and a-half months from the coitus the movements of the foetus were observed, and on the 243rd day labour occurred. The child, having every appearance of being at full term, measured fifty-two cm. and weighed 3550 grammes.

After a careful study of the case, Krönig arrives at the following conclusions:

- (1) A fully-developed child may be born after a period of pregnancy lasting 243 days.
- (2) The spermatozoön retains its vitality in the lochial secretion.
- (3) The ovarian activity does not entirely cease during pregnancy. The follicles ripen and may rupture very soon after labour.
- (4) Menstruation and ovulation may occur independently.
- (5) In strong individuals there may be a rapid regeneration of the mucous membrane, rendering possible the attachment of an impregnated ovule in the earliest period of the puerperal state.

THE TREATMENT OF THE NAUSEA AND VOMITING OF PREGNANCY.

FROMMEL reports, in the *Centralblatt für Gynäkologie*, 1893, No. 16, four cases of obstinate nausea and vomiting of pregnancy treated by orexin. The effect upon all was excellent, although during previous pregnancies some of the patients had been persistently sick. The dose of orexin was five grains given twice or three times daily in wafer or gelatin capsules.

PUERPERAL ARTHRITIS OF THE SACRO-ILIAC JOINTS.

BUDIN reports, in *Le Progrès Medical*, 1893, No. 13, the case of a woman whose first pregnancy had been terminated prematurely, and who had also suffered from typhoid fever and erysipelas. She was admitted to the Charité during her second pregnancy, complaining of hæmorrhage and also of pain about the joints of the pelvis. Her pregnancy terminated spontaneously in normal labour, her pelvic pain continuing acute, although she suffered little during the period of expulsion. Careful examination of the pelvis disclosed arthritis of the sacro-iliac joints. Other and similar cases are also reported.

The diagnosis is made by exclusion and careful examination. The prognosis varies with the case. In certain cases of acute puerperal infection the prognosis is grave. While many cases recovered promptly, some persisted, accompanied by great suffering. The treatment embraced repose and absolute immobility of the pelvis. Constipation must be carefully avoided, especially when the left sacro-iliac joint is involved. External counter-irritants are often useful. If recovery does not ensue, passive movements are sometimes advantageous. The use of mineral waters and of medicated baths is also of advantage.

GASTRIC HÆMORRHAGE DURING PREGNANCY.

ROBERT KOCH, in the *St. Petersburger medicinische Wochenschrift*, 1893, No. 10, reports the case of a primigravida in the third month of gestation, who suffered from gastric ulcer. Hæmorrhage was profuse and frequent, and the patient profoundly anæmic; she finally recovered from the bleeding, and was delivered of a healthy child at term.

OSTEOMALACIA.

STERNBURG (*Wiener klinische Wochenschrift*, No. 44, 1892) warmly advocates phosphorus treatment for osteo-

malacia, and records the notes of three cases so treated. The first case was that of a woman who suffered from pain in the sacral region during her fourth pregnancy. After labour the pain disappeared. In the fifth pregnancy, violent sacral pain reappeared, rendering walking difficult. The pain continued after the termination of pregnancy, and legs and breast were likewise affected. The patient when seen by Sternburg had been confined to bed for a year, and evinced a high grade of osteomalacia. She was ordered :—

R. Phosphorus gr. j.
Ol. morrhuae ʒ ij.

M. S. Teaspoonful daily in divided doses.

After ten months' treatment in hospital the deformed soft bones were perfectly hard, and the woman could walk long distances.

In the second case, the trouble began in the fourth pregnancy, disappearing after labour. In the fifth pregnancy the disease returned with renewed violence, quickly reaching such a grade that the woman nearly the entire period of her gravidity was forced to remain in bed. After labour the patient could not raise herself from the bed. About a year and a-half after, she came under observation. As a pulmonary complication contra-indicated castration, she was placed upon the phosphorus treatment, with rapid amelioration of the symptoms. In three months she was able to leave her bed without assistance, and soon could walk a few steps.

The third case gave indications of the trouble in the third puerperium. In the eighth pregnancy she experienced pains in the sacrum and lumbar region, but grew better after labour. The ninth pregnancy also showed an exacerbation.

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THE BRITISH GYNÆCOLOGICAL SOCIETY.

THURSDAY, NOVEMBER 9, 1893.

F. BOWREMAN JESSETT, F.R.C.S., PRESIDENT, IN THE CHAIR.

PRESENT: 31 Fellows.

SPECIMENS.

Dr. THOMAS SAVAGE showed:—

(1) *Suppurating Fallopian tubes*; removed the same morning. The patient had been confined early in the summer, and the puerperium had been attended with inflammatory symptoms. Examination showed a mass in Douglas's pouch, which proved to be the two tubes, which were enlarged and suppurating.

(2) *A Uterus removed by Vaginal Hysterectomy for Prolapse.*—The organ was prolapsed and its cavity measured five inches before operation. The patient was 46 years of age, and had just passed the climacteric. She had had complete proclimacteria for twelve months. For the last six months the uterus had not remained inside the pelvis for ten minutes at a time,

and she was quite disabled thereby. Pessaries had been tried in vain, and she was advised to have the organ removed, the risks being clearly pointed out. To this she assented, and it was done. The question of justifiability turned, he thought, on the age, for with the uterus quite outside, the procedure was quite simple, and practically devoid of danger. Alexander's operation or ventrofixation might have been tried, but he thought hysterectomy was much less risky than either. This mode of treatment gave an opportunity for relieving a certain small number of these distressing cases, and he would like to have the opinion of the Society regarding his course of action.

Dr. FENTON at once accepted the challenge of Dr. Savage in reference to this case. He asked, was it good sound surgery to remove the uterus entirely, or to fix it up to the anterior abdominal wall in cases of complete procidentia? In the first place hysterectomy had by far the larger mortality. On the other hand ventrofixation of the uterus was being done, and had been done by the different Members of the Staff of the Chelsea Hospital for Women with the most satisfactory results, and with a rapidly diminishing mortality. He had not the slightest doubt that with properly selected cases and with some little improvement in procedure the risks to life would become infinitesimal. Risk to life was one consideration; another was, how could any one expect to benefit the patient by removing the uterus for prolapsus. It was quite true that the extrusion of the uterus from the body was a salient feature of such cases, but so in earlier stages was the prolapse of the bladder and the prolapse of the rectum. It would be as much to the point to suggest removal of the bladder or rectum in those stages as subsequently in the final stage to excise the uterus.

What was called complete prolapsus uteri was, after all, an exaggerated hernia of the pelvic floor. Like other hernia it was often congenital. A chief predisposing cause was a long and lax mesentery. Men with such mesenteries were liable to inguinal hernia; women either to femoral hernia,

or if through the incidents of child bearing and parturition the supports of the pelvic floor had been overstrained, to hernia of the lax coils of the intestines, through the pelvic canal, carrying before them the pelvic floor.

The uterus, therefore, in such cases by its position marked the point to which the pelvic floor had descended. It was merely, as it were, an index. To imagine that a small body like the uterus, weighing some three or four ounces at most, had dragged all these parts down was too absurd. Yet it must be on some such assumption as this, that an operator would make up his mind to remove it, to relieve the pelvic floor of its weight.

He felt confident that in six months' time Dr. Savage would find that there was as much of a hernia as ever. However, the uterus could be made of great service in the cure of this condition. It was quite easy and simple to make a small opening in the lower part of the anterior abdominal wall, seize the uterus, lift it up, raising with it the *whole pelvic floor, bladder and rectum*, and fix it with sutures to the abdominal wall. And there it would stay, held by firm adhesions. The uterus thus formed a most valuable *point d'appui*.

Further, this operation was as applicable to the young as to the advanced in life. There was no mutilation, there was neither loss of organ nor of function. In cases which had been so treated, it had been found that conception, gestation, and parturition were in no way interfered with.

Particulars of the earlier cases of ventrofixation had been given in a very valuable and carefully elaborated paper by Drs. Leith Napier and Schacht, read before the British Medical Association. Since which, other cases had been operated upon with better results still, as to speedier convalescence and diminished mortality.

In view of such facts Dr. Fenton felt it his duty to raise an earnest protest against the removal of the uterus for prolapse.

The PRESIDENT inquired what mortality attended the operation as practised at the Chelsea Hospital for Women?

Dr. LEITH NAPIER, as one who had been largely responsible for the introduction of the operation at Chelsea, replied to the President's question. The mortality among the first twenty cases was ten per cent. ; these cases had been published, one was exceptionally difficult, he hoped the mortality would decrease as they went on till it became a mere fractional quantity. It was to be remembered that they had only operated on severe and difficult cases, incurable except by one or other of the operations under discussion. He quite agreed with Dr. Fenton that in the great majority of cases it was the vaginal walls which were at fault, and not the uterus. Removal of the uterus would not correct the vaginal condition, and he should not be surprised if Dr. Savage's patient eventually required anterior and posterior colporrhaphy. The risk of removal of the uterus might, in Dr. Savage's competent hands, be small, but he thought it would be a great responsibility for them, as a Society, to recommend it. It had been done, it was true, on the continent, but there was risk of shock, and of sepsis, and in younger women there were other grave consequences to be considered. It unsexed the woman, and he thought that ethically it was wrong. Again referring to ventrofixation, he questioned whether any abdominal operation had a smaller mortality. They had been candid and open in stating their mortality at Chelsea before the Society, and before the British Medical Association ; but in 270 cases in which the operation had been performed on the Continent there were only three deaths—a mortality only a fraction above one per cent.

Dr. BANTOCK thought the question raised by the case of Dr. Savage was most important. He would go further in his opposition than Dr. Fenton did, for in thirty years' experience he had never seen a case that required either hysterectomy or hysteropexy. It was quite possible to support the uterus, and the other parts which came down, by the adoption of a suitable Hodge's pessary provided with a diaphragm. This would keep up not only the uterus but also an accompanying cystocele. It would not, it was true, control a

rectocele, but this would not occur unless the perinæum was deficient, and then the operation of perineorrhaphy was obviously indicated. He agreed with Dr. Fenton that the uterus was not the offending organ, but he thought that in pointing out this fact Dr. Fenton weakened his own argument. If the uterus were fixed to the abdominal wall the bladder would still come down sooner or later. The results of Alexander's operation showed that the condition generally returned after the uterus had been tied up, at least, so far as the bladder and the vaginal walls were concerned. He would enter his protest against both operations, hysteropexy as well as hysterectomy, in the treatment of prolapse.

VAGINAL HYSTERECTOMY ON A PATIENT 66 YEARS OF AGE.

By JAS. MACPHERSON LAWRIE, M.D., Physician to the Sanatorium for Diseases of Women, Weymouth.

Mrs. F., aged 66, consulted me during November, 1892, on account of pain in the region of the uterus and a vaginal discharge. These symptoms had been in existence for about one year. The discharge was at first muco-purulent, but during the last three months had assumed a hæmorrhagic character, and the pain had latterly become very severe. The patient was a widow. The periods ceased at 50 years of age. Examination showed the presence of a good deal of cervical catarrh. The sound passed the normal distance, some hæmorrhage followed its insertion; on bimanual examination the uterus was found to be somewhat tender, but was quite movable. On November 20, 1892, the cervix was dilated. A careful examination of the interior of the uterus revealed the existence of an indurated nodular mass, occupying the upper part of the uterine cavity. By means of the curette this was thoroughly scraped away, and the surface left fairly smooth. This operation was followed by great relief. The discharge disappeared, and the pain ceased. The patient gained in health and strength,

but in three months the symptoms returned, and she was as bad as ever. The uterus was again dilated, and the growth, which had attained greater size, was again thoroughly curetted. For a second time the patient's condition was much improved, but only for a short period, and in six weeks the old symptoms began to return. A third time the uterus was dilated. The growth was found to have grown more rapidly. It was determined to make the removal as thorough as possible. With a strong curette the growth and underlying tissues were completely scooped out till almost the whole thickness of the uterus at that part had been removed. Severe constitutional disturbance took place after this operation, but the result seemed all that could be desired for some four or five months. She then wrote me to say that the pain had recurred in a most severe form, and was accompanied by considerable hæmorrhage.

It was now quite useless to propose any further palliative measures. The patient's condition was bad; she was being rapidly undermined with pain and loss of blood. I felt it my duty to advise her to face the risk of complete removal of the uterus, and after consultation with her friends, she consented.

The operation took place on October 25 last. The patient had never had any children, and the vagina was so narrow that it was necessary to divide the perinæum and recto-vaginal septum down to the bowel, and afterwards to stretch the enlarged vagina by means of retractors.

The uterus was somewhat higher than usual in the pelvic cavity. The os could be distinguished towards the upper extremity of the vagina. No cervix could be defined, and the sound in the bladder shewed that this organ was adherent to the cervix in its whole extent. After dragging down the uterus by means of a pair of single-toothed forceps attached to the posterior cervical lip, it became possible to make out the cervix invested by the bladder in front. A firm hold of the posterior part of the cervix was obtained by means of a strong volsella, the uterus pulled down as far as possible, and the volsella given to my friend Dr. Smyth to hold, who gave

me great assistance during the operation. The vaginal mucous membrane was next cut across in the anterior fornix, by snipping it with a pair of scissors, after it had been ligatured in three parts to control hæmorrhage. The mucous membrane was then peeled from the under surface of the bladder as far as the anterior lip, and the process of separating the bladder from the cervix commenced. This proved difficult and tedious. The bladder was found to be dilated, its coats were thin, and it was unusually adherent to the cervix. The index finger and a blunt instrument, shaped like a large spud, were chiefly employed, with occasional use of the scissors; at one part the separated bladder was so thin that the sound could be seen through its coats. When the separation had been carried out as thoroughly as possible, without interfering with the plica vesico-uternia, the vaginal mucous membrane covering the posterior surface of the cervix was cut across, and after some dissection behind the uterus, a small opening was made through the peritoneum into Douglas's pouch. This opening was subsequently enlarged, and by passing two fingers through into the peritoneal cavity, and over the fundus of the uterus, it was found possible to press down the peritoneal fold between the uterus and bladder, and cut it through by means of a pair of scissors held in the other hand. The uterus was now completely separated from its attachment in front and behind, and only held on each side by the broad ligaments. These structures were transfixed with No. 4 Chinese silk ligatures, which were firmly tied, and the uterus cut away. By gentle traction on the ligatures the whole field of operation was brought into view, and all hæmorrhage effectually controlled. The cavity was thoroughly douched and cleansed, the wound in the perinæum was brought together with five silk-worm gut sutures, and the vagina packed, as far as the upper limits of the broad ligaments, with iodoform gauze.

Before removing the patient from the table the bladder was filled with water and found to be quite intact. The after history of the case was uneventful. She had almost no fever,

except on one occasion when the temperature rose to 101°. The pulse varied between 90 and 100. The iodoform gauze was renewed twice, and then not replaced, and the vagina was well washed out daily after the first few days. The catheter was used every four or six hours for the first three days; on the third day the bowels were well opened, and the urine passed voluntarily.

Pathological Report, by Surgeon-Major John Smyth, Surgeon and Pathologist to the Madras Hospital.

The body of the uterus is slightly enlarged, and presents a more vascular appearance than a normal organ; there are no other external evidences of disease. On laying open the organ by incisions running downwards from the cornua to the os externum, the anterior and posterior walls separate widely from each other, owing to the presence of a tumour in the cavity. It is a sessile tumour occupying the whole of the posterior wall of the uterine cavity from the fundus to the os internum. It projects about half-an-inch above the surrounding surface. Its free surface presents several deep lacerations, running irregularly through its substance, but in a direction chiefly longitudinal; in texture this tumour is very friable; its colour in section is a dull grey with red mottling from the presence of blood extravasations. Its tissue is intimately incorporated with that of the uterine wall, yet its grey friable granular character defines it, distinctly enough, from the tough, pale, fleshy tissue of the uterus. The latter has only been slightly invaded by the new growth. Microscopic preparations of the tissue of the new growth shew it to be composed of masses of epithelial cells arranged after the manner of pavement epithelium, and not in spaces as in scirrhus cancer. Neither nests nor cylinders can be demonstrated by the microscope, but the appearances described, both anatomical and microscopic, leave no room to doubt that the new growth is an epithelioma.

TWELVE CASES OF VAGINAL HYSTERECTOMY FOR CARCINOMA UTERI, WITH ONE DEATH. By FRED. BOWREMAN JESSETT, F.R.C.S., President.

My object in bringing the following cases before this Society is to elicit the views of the Fellows on the following points:—

(1) What rules should guide us in advising operative interference in cases of malignant disease of the uterus?

(2) What is the best method of performing the operation of total extirpation of the uterus, and the treatment of the wound after its removal?

(3) What is the immediate mortality which is likely to follow, and the probability of recurrence of the disease?

That, with increased knowledge of, and practice in, performing these operations, the mortality may be not only considerably reduced, but so reduced as to compare most favourably with other surgical operations, I think there can be no doubt; the work of surgeons on the Continent, in America, and at home fully prove this.

The series of cases I propose to bring before you are those which I have performed during the last twelve months, and thus my remarks will only be directed as to the safety of the operation, and it must be left for the future to judge as to how far a radical cure has been attained.

For the notes of the cases which have been operated on by me in the Cancer Hospital, I am indebted to Mr. West, the House Surgeon.

Case I.—E. B., aged 38, married, four children, was sent to me by Mrs. Scharlieb suffering from carcinoma of the uterus. She was admitted into the Cancer Hospital on December 22, 1892. Patient had inflammation of the uterus four years ago, and has never felt well since. Noticed a thin, watery discharge, followed six months later by a severe hæmorrhage; since then the discharge has been blood-stained, and very offensive. Suffers great pain, but has not lost flesh.

Present State.—There is a quantity of blood-stained offensive discharge; the os is deeply ulcerated and hard, bleeding readily on examination. The disease extends somewhat along the vaginal wall on the left side, and appears to implicate the broad ligament slightly.

On January 3 of this year, with the assistance of Dr. Purcell, I performed vaginal hysterectomy. I experienced great difficulty in extracting the body of the uterus, partly in consequence of its size, and partly from a somewhat contracted pelvis, and I have to thank Dr. Purcell for his able assistance, as in consequence of having injured one of my hands a few days previously I was unable to avail myself of its use. A drainage tube was inserted, and the vagina was packed with iodoform gauze. The patient made an uninterrupted recovery, and is at present quite free from any recurrence of the disease. Microscopic examination—epithelioma.

Case II.—H. D., aged 58, consulted me in February as to a disagreeable, badly-smelling discharge she was suffering from. She was married, six children. On examination, the os was found to be eroded and deeply fissured, the cervix hard, and on passage of the sound was felt to be roughened. The uterus was quite movable, and easily brought down to the vulva.

On February 20 I performed vaginal hysterectomy, no difficulty being experienced in drawing the uterus well down. The broad ligaments were ligatured, and the vagina firmly packed with strips of iodoform gauze; no drainage tube inserted. The gauze was not removed for some days. The patient made an uninterrupted recovery, and is now quite well. The microscopic examination of the growth showed it to be "scirrhus."

Case III.—Miss I., aged 63, was seen by me in consultation with Dr. Gross on June 30. I had on a previous occasion operated on this patient, removing a quantity of soft growth from the uterus, which on microscopical examination proved to be a small round-celled sarcoma. At present date

she was suffering from bleeding, and on examination under an anæsthetic the uterus was found to be large and filled with a soft elastic mass. I advised the operation of total extirpation. Dr. John Williams subsequently saw this patient with Dr. Gross and myself, and confirmed our opinion.

On July 6, with the assistance of Dr. Gross, Dr. Purcell and Mr. West, Dr. Bourns giving the anæsthetic, I proceeded to remove the whole uterus *per vaginam*. The operation was one of extreme difficulty, owing to the softened and thin condition of the uterine substance, which broke readily down under the pressure of forceps. The vagina also was so narrow and contracted that I had to divide the perinæum through to the rectum, and even then, owing to the size of the uterus, I experienced great difficulty. I emptied the uterus first with my dredger, and then with a blunt hook endeavoured to draw the viscus down, but failed owing to its rotten condition. I then with some difficulty passed my hand into the anterior *cul de sac* of the peritoneum, and seized the fundus of the uterus and drew it out. The broad ligaments were now readily ligatured, and the organ removed. The peritoneum was thoroughly irrigated, and the anterior and posterior flaps of peritoneum drawn well down by means of forceps, and a large glass drainage tube inserted, the vagina being packed around it with iodoform gauze, and a winged catheter inserted into the bladder. Finally, the divided perinæum was closed by deep silkworm-gut sutures, and the patient returned to bed. The tube was emptied every six hours by means of an ordinary glass syringe with a piece of rubber tubing attached, and a piece of iodoform gauze was kept constantly in the tube.

The patient made an excellent convalescence. The glass drainage tube was removed on the third day. The microscopic examination confirmed the previous report. The disease in this case recurred, in about two months, in the broad ligament.

Case IV.—A. W., aged 36, married, no children, was sent to me by Dr. Heywood Smith, and admitted into the Cancer

Hospital on May 15, suffering from sarcoma of the uterus. The patient has suffered from pain in the lower part of the abdomen and in the back for the last eight months, and has had a discharge for the same period, which has latterly become more watery and offensive. Patient had a severe flooding on April 10, 1893. She has lost flesh rapidly lately.

Present Condition.—In the situation of the os is an ulcer admitting the forefinger for about an inch; the walls of the cavity are hard and rough; the hardness extends more to the left side. The vaginal walls are free. The uterus is freely movable, though the left broad ligament appears slightly involved.

May 16.—I performed vaginal hysterectomy with the assistance of Mr. Cotterell and Mr. West. The uterus was fairly easily removed, but the disease along the left broad ligament was found to extend further than appeared by the examination, and in removing this the ureter was divided and was found to pass completely through the growth. The vagina was packed with iodoform gauze, the peritoneal flaps being held firmly down by forceps. No drainage tube was inserted.

The patient made an excellent convalescence, although urine escaped *per vaginam*, and was the cause of trouble later on. Epithelioma.

Case V.—E. S., aged 52, married, three children, consulted me, suffering from a sanious, badly-smelling discharge. She had had bleeding from time to time, especially when riding in cabs or omnibuses. She has suffered a good deal of pain in her back and left hip. The pathologist, upon examination, pronounced it to be a round-celled sarcoma.

Present Condition.—A large cauliflower growth occupies the entire os, but the vaginal walls appear to be quite free. The uterus is freely movable, and does not appear to be enlarged.

I advised in this case supra-vaginal amputation of the os and cervix, and on May 19, with the assistance of Dr. Purcell and Mr. West, I proceeded to operate. On drawing down

the uterus, however, the cervix appeared so thickened and hard that I decided to remove the entire organ. This was readily done, and the uterus was easily delivered, and the broad ligament secured. In this case the ovaries and tubes were also removed, as they presented themselves in the wound. The peritoneal flaps being drawn down by forceps, I proceeded to pack the vagina with iodoform gauze, which was not removed for some days. No drainage tube was inserted.

The patient made an excellent recovery and has kept quite well since.

Case VI.—C. J. E., aged 42, widow, no children, was sent to me by Dr. Pedler and Dr. Heywood Smith. She was admitted into the Cancer Hospital on June 24 suffering from adenoid cancer of uterus. Patient has suffered from hæmorrhage for some considerable time, and has lost flesh rapidly. Dr. Heywood Smith three weeks ago dilated the os and curetted the uterine cavity. The scrapings were examined microscopically and pronounced to be encephaloid cancer.

Present Condition.—Patient is an anæmic, poorly-nourished woman. The os and cervix appear normal, but the body of the uterus is enlarged considerably, and feels hard and globular; freely movable. The left broad ligament feels slightly thickened.

July 1.—With the assistance of Mr. Cotterell and Mr. West I performed vaginal hysterectomy. The vagina was very small and the uterus enlarged. Some difficulty was experienced in its removal—in fact it was found to be impossible to either antevert or retrovert the organ. So I proceeded to ligature the broad ligament in segments from below upwards, dragging the uterus down in the axis of the pelvis. The peritoneal flaps were brought well down by means of forceps and the vagina packed with iodoform gauze.

The patient made an excellent convalescence, and left the hospital on August 4.

Case VII.—E. A., aged 32, married, two children, youngest 5 years old, was sent to me by Mr. Butler-Smythe suffering

from carcinoma of the uterus. She was admitted into the Cancer Hospital on July 31, 1893, affected with round-celled sarcoma of uterus.

The patient has had vaginal discharge, at times stained with blood, for the last five or six months. Has had severe pain in the back and lower part of abdomen for the last three months. Has lost flesh rapidly of late.

Present Condition.—In the situation of the external os there is an ulcerated cavity admitting the finger; the ulceration extends considerably to the left, and appears to complicate the tissues on the left of the neck of the uterus. Uterus is movable.

August 1.—I performed vaginal hysterectomy. There was some difficulty in detaching the diseased surface on the left of os. In this case, after cutting round the os, I tied the uterine artery on the right side and then proceeded to open up the peritoneum in front and behind the uterus, and pulled the right broad ligament well down, ligaturing it in segments. I then drew the fundus of the uterus down and ligatured the left broad ligament, commencing at the top, first tying the ovarian artery, and so on down to the disease, which was found to implicate the cellular tissue between the roof of the vagina and the peritoneum. I endeavoured by careful dissection to avoid the ureter, which, however, was wounded in passing through the disease. A glass drainage tube was inserted and the anterior and posterior flaps well drawn down with forceps and the vagina packed with iodoform gauze and a self-retaining catheter introduced into the bladder. The drainage tube and gauze were removed on the third day; the latter was soaked with urine. Three or four strips of gauze were passed into the vagina to act as drainage, and the vagina kept well irrigated with iodine and water.

The patient made a good recovery, and was discharged on September 27. I supplied this patient with a ball pessary of india-rubber, which was inflated by means of an air syringe. The pessary had an opening in the centre to which was attached an india-rubber tube which was conducted to a

urinal which was fastened to the patient's leg, so as to allow the urine passed into the vagina to drain into the urinal.

Case VIII.—Mrs. S., aged 55, married, three children, menopause about five years ago. I was asked to see this patient, who was suffering from round-celled sarcoma of uterus, by Mrs. Garrett-Anderson. Patient first noticed discharge about one and a-half years ago, when Dr. Marriott (Leicester) discovered some erosion of the os, which was curetted. Matters continued much the same, the discharge gradually increasing, and she suffered much from pain in the back. Mrs. Garrett-Anderson first saw her on July 2, when there was a good deal of bleeding. Mrs. Anderson dilated the uterus and found some roughened growth in the cavity. A portion of this was removed with the curette and examined microscopically; the growth was pronounced to be malignant.

Present Condition.—Body of uterus heavy but movable, and somewhat retroflexed. A sanguineous discharge from os. Right broad ligament appears to be somewhat thickened.

On July 7, with the assistance of Mr. Cotterell and Dr. Gross, Mrs. Garrett-Anderson being present, I proceeded to perform vaginal hysterectomy. There was no particular difficulty in the operation. After drawing down the peritoneal flaps I packed the vagina with iodoform gauze, no drainage tube inserted, and introduced a winged catheter into bladder. The patient made an excellent recovery, and is now keeping well.

Case IX.—Mrs. H., aged 35, married, two children, was sent to me by Dr. Cullingworth. Patient had had discharge for eighteen months, and bleeding from time to time. Suffers a great deal of pain at bottom of back.

Present Condition.—A large ulcerated surface occupies the position of the os, extending to vaginal roof. Bleeds on examination. A badly smelling discharge from surface. Uterus movable, but the disease seems to have infiltrated the cellular tissue around neck of uterus. Microscopical examination, sarcoma.

July 17.—With the assistance of Mr. Cotterell and Mrs. Garrett-Anderson I proceeded to remove the uterus *per vaginam*. The uterus was somewhat enlarged, but still I experienced no great difficulty in its removal. There was a good deal of bleeding from a small vessel on the left side. I pulled the peritoneal flaps down and packed the vagina in the usual way, but omitted to insert a drainage tube. A winged catheter was passed into the bladder and the patient returned to bed. The patient did very well for the first two days, but then signs of mischief set in, and although I withdrew the gauze and inserted a glass drainage tube into the peritoneal cavity and washed it out with warm boric acid solution, the patient succumbed, and died on the sixth day after the operation. I am strongly impressed with the idea that had I introduced a drainage tube at the time of operation this patient's life might have been saved.

Case X.—E. D., aged 57, married, four children, three miscarriages. Last pregnancy fifteen years ago. Was sent to me by Dr. Heywood Smith and Dr. Hunter, and admitted into the Cancer Hospital on August 1.

Patient had had vaginal discharge for the last year; for the last six months she has noticed blood occasionally in the discharge. The discharge of late has become more watery and offensive. She has suffered much pain in the lower part of abdomen and back, and has lost flesh rapidly.

Present Condition.—In the situation of the external os there is an ulcer admitting the tip of forefinger, rough, bleeding readily; the neck of the uterus is hard. The uterus freely movable.

On August 5, with the assistance of Dr. West and Dr. Pethybridge, I performed vaginal hysterectomy. One or two bleeding points gave trouble, so I secured them with forceps, which were left on. The vagina was packed with iodoform gauze, no drainage tube inserted. The forceps and gauze were removed the next day, the vagina syringed out through a Ferguson's speculum, and the vagina replugged with iodoform gauze.

The patient made an uninterrupted recovery, and left the hospital on September 7. She has regained strength and flesh since, and is now well.

Case XI.—M. J., aged 33, married, two children, and two miscarriages, was sent to me by Dr. Barbour, and was admitted into the Cancer Hospital under my care October 2, suffering from adeno-carcinoma of the fundus uteri.

History.—Three years ago, when five months gone in pregnancy, she fell out of the tram as it was moving. She was much frightened, and a miscarriage followed. She kept her bed for three months after, had much pain and had constant shivering attacks. She has suffered pain in lower part of abdomen ever since, and has had three or four severe floodings. Patient seldom goes more than nine or ten days without some hæmorrhage *per vaginam*.

Present Condition.—Patient is losing blood from uterus in considerable quantities. No tumour to be felt by abdomen, No ulceration or erosion of os. The uterus feels enlarged bimanually, is freely movable. The sound passes three and a-half inches.

October 10.—The patient was placed under an anæsthetic and the cervical canal dilated up to 24 Hegar, and the uterine cavity explored. The mucous membrane was roughened, and there was a growth felt at the fundus. The uterine cavity was curetted and the growth removed for microscopic purposes. This scraping was pronounced to be sarcoma. As a result of this examination the patient was strongly advised to have the organ removed, and on October 13, with the assistance of Dr. Purcell and Mr. West, I proceeded to perform vaginal hysterectomy. The case was one of unusual difficulty, owing to the narrowness of the vagina, and the size of the uterus, which when removed was found to measure close upon seven inches in length. The peritoneal cavity was drained with a glass tube and the vagina packed. The patient made an excellent convalescence, and was up at the end of three weeks.

Case XII.—H. K., aged 54, married, eight children, youngest twelve years old, was admitted into the Cancer Hospital on July

8, 1893, suffering from a large fibro-myoma of the uterus. The patient has had swelling of the abdomen and constant attacks of hæmorrhage from the vagina for the last twelve or thirteen years. The attacks of hæmorrhage have become much more frequent and severe of late. She commenced to menstruate at fifteen, was regular until twelve years ago, when she began to lose more than usual. Her periods last now nearly three weeks.

Present Condition.—Patient very anæmic. There is a rounded tumour felt in the lower part of the abdomen rising out of the pelvis about the size of a foetal head. On bimanual examination the tumour is found to be intimately connected with the uterus.

On July 13, with the assistance of Messrs. Elam, Cotterell, and Dr. West, I performed the following operation:—An incision was made in the middle line of the abdomen below the umbilicus, and the peritoneal cavity opened. The tumour presented itself in the incision; the round ligament and ovarian vessels were tied on each side with silk. The tumour was then drawn well out of the wound and an elastic ligature placed securely as low down as possible. An anterior and posterior flap was next dissected from the uterus by means of scissors bent on the flat, the tumour and uterus being drawn upon by an assistant; the uterine arteries were secured, and tied on both sides, and the elastic ligature removed, all bleeding points were then tied. Mr. Cotterell next passed a full-sized Ferguson speculum into the vagina, pushing well up. I then proceeded by short snips with the scissors, which were kept close to the uterine tissues, to cut down upon the end of the speculum, first in the anterior tissues and then the posterior; a silk ligature was then passed round the lateral portions and tied securely, the uterus was then liberated by dividing these close to the uterine neck. There was very little hæmorrhage. The next step of the operation was to pass all the ends of the ligatures which had been left long through the speculum down the vagina. Long sutures were passed through the uterine flaps, about six in number. They

were passed in this manner :—a needle armed with silk was passed from the raw surface through the anterior flap close to its border, this suture was brought over the cut end of the two flaps and through the posterior flap from the peritoneal surface to the raw surface. These sutures were not tied tightly but only fastened at the end so as to form a large loop. These were all passed down through the vagina by means of long forceps and drawn taut, the effect being that the two flaps were inverted, the peritoneal surface of each flap being held in close apposition, at the same time the flaps being bent upon themselves brought the raw surface of each flap in contact. The vagina was finally firmly packed with iodoform gauze; the abdominal wound closed in the usual manner, and a winged catheter introduced into the bladder.

July 14.—The patient passed a good night, notwithstanding more or less constant retching from the anæsthetic, which she suffered from. Temp. 98.2°; pulse 96, regular. She was fed by the rectum with zymised meat suppositories alternated with brandy and zymised beef tea enemata every four hours. The retching gradually ceased under the use of drop doses of tinct. iodi.

July 16. — Patient doing well. The gauze plugs were removed from the vagina, which was douched out with iodine water.

July 30.—All the sutures and ligatures came away, and on August 1 she was convalescent.

Remarks.—I shall address my remarks upon these cases pretty much as answers to the propositions I mentioned in the opening remarks of this paper.

(1) What rules should guide us in advising total extirpation of the uterus in cases of uterine cancer?

In December, 1892, I read a paper before this Society,¹ giving the results of twenty-five cases of supra-vaginal amputation of the cervix for carcinoma, and in that paper I expressed my opinion that *those cases of carcinoma of the uterus*

¹ BRITISH GYNÆCOLOGICAL JOURNAL, part xxxii., p. 353.

in which the disease is limited to the vaginal portion of the viscus or the neck of the uterus, and in which the fundus is free from disease, were cases in which we should be contented with performing the lesser operation of supra-vaginal amputation of the cervix.

I have seen no reason to alter these views, as in seventeen cases which had recovered from this operation, most of which I have been able to keep in sight, there has been no recurrence of the disease. Those cases, then, in which the disease is limited as I have described, should, in my opinion, not be subjected to the major operation of vaginal hysterectomy. Having excluded these, the next question arises, in what cases can we recommend operation—1st, in respect to the immediate recovery of the patient; and 2nd, with regard to the recurrence of the disease and prolongation of life.

Now with regard to the immediate recovery, it has been well pointed out by Dr. W. A. Duncan there would be great risk in accepting statistics, of getting the mortality inherent to the operators and not the operation; and I think the rule laid down by Mr. Lawson Tait seems reasonable, it consists in only dealing with results obtained in the practice of those surgeons whose ability and experience are affirmed.

If the surgeon is at all doubtful as to the limits of the disease, *i.e.*, if the disease has commenced in the cervix or external os, and he is uncertain as to how far it has extended into the body of the uterus, total extirpation should be practised; for as the results of my cases show, and these are confirmed by Leopold, Kalténbach, D. de Ott, Pean, Pozzi, Japp Sinclair, Lewers and others, the immediate mortality in suitable cases from vaginal hysterectomy in experienced hands may be looked upon at from 5 to 8 per cent.

I think then, we may adopt the rule:—*That when the disease has extended beyond the cervical canal, or has commenced in the fundus of the uterus, and the uterus itself is freely movable and readily drawn down to the vulva, that such cases are suitable for operation. But if the disease has extended to the broad ligaments, or if the vaginal wall is*

seriously implicated, or if we can feel any enlargement of the lumbar or sacral glands, and the uterus is fixed, then it will be wise to either leave matters alone or adopt some palliative measures, to which I have alluded elsewhere.

With regard to the question of recurrence after operation, it is difficult to lay down any rule, as it is impossible to estimate how far the lymphatics may be involved or the disease extended into the loose areolar tissues around the neck of the uterus. But we may be guided to a large extent by the nature of the malignant growths which exist, and for this purpose I think we might do much if we, as a preliminary measure, satisfied ourselves on this point by obtaining a small scraping and had it examined microscopically.

I think it will be found that some of these rapidly growing medullary carcinomata or small round-celled sarcomata recur very much more quickly and certainly than adenoid carcinoma or epithelioma. There are no statistics, however, on this point to guide us, but much may be learned from the statistics recorded by Hofmeier, which my own experience thoroughly agrees with, of the comparative length of time that patients remain free from recurrence after total extirpation and supra-vaginal amputation of the cervix.

From the statistics compiled by Hofmeier, from the practice of Schröder,¹ uniting entire operations and partial ones, it will be seen that the percentage of cases in which patients were free from the disease at the end of *one* year was in favour of total extirpation of the organ; yet each year after this the advantage gradually decreased, until at the end of the *fourth* year not one of the cases of total extirpation were free from recurrence, while 41.3 per cent. of those cases in which partial removal of the organ had been practised were well after four years.

Now there appears to be two ways of explaining these statistics, one is that in those cases in which partial removal was practised, the disease was recognised and removed before the lymphatics became affected. The other explanation is that

¹ "A Treatise on Gynæcology," by Pozzi, vol. ii., p. 65.

in the cases of partial removal the disease was either epithelioma or adenoid carcinoma, while in many of those cases in which the whole organ was removed the disease was either sarcoma or medullary carcinoma.

I think it will be found that a large number of cases of malignant diseases of the uterus are sarcomatous, much more so than is generally imagined. Of the seven I have now placed before you, two-thirds were pronounced by the pathologist to be sarcomatous.

Now we have seen that in one case of sarcoma the disease returned at once, and I shall watch with interest to see how long the other cases remain free from the disease. I consider this a very important point, and if it can be proved that these rapidly-increasing growths do return quickly, it is a question if the case so affected should be subjected to operative interference at all, or at any rate only when seen quite early. This point is one well worthy of study, and I shall hope to hear what the experience of the Fellows of this Society is on the point.

(2) The next question we have to discuss is, What is the best method of performing the operation?

It is not my intention to discuss all the different steps of the operation, they are too well known to you to need it, but there are a few points in which the most experienced operators hold different views. First, should the hæmorrhage be controlled with clamp and forceps, or should the surgeon only adopt the use of the ligature? In the *Archives Générales de Médecine*, G. Richellet ("Annals of Surgery," vol. xvii., part 9, p. 334) has furnished an article based upon his experience acquired in 225 operations of vaginal hysterectomy in which he had eleven deaths. Operations, as the writer says, "were made under the most varied and dangerous conditions," he, "having never declined to operate when there seemed a chance of recovery for the patient." I notice, however, he does not confine his operations to carcinoma, but removes the uterus for certain forms of prolapse, or of metritis, which resist treatment, and on rare occasions for neuralgia of the uterus. Then he in-

cludes in his list uterine fibroids, where the seat and number of the tumours render total extirpation necessary, and where the mass is not so large as to prevent removal in this way. So that his statistics are useless when applied to removal of the organ for malignant disease. This operator appears to use the clamp exclusively for arresting hæmorrhage. Pean and others also adopt the use of the clamp. My own experience is that in all cases where a ligature can be applied it should be. It is all very well to say that the use of the clamp saves time, and acts as drainage; so it may, but as I have shown in a former paper the results after the use of the clamps are not so good, and this I think can be explained by the fact that to the patients the retention of a large number of forceps for 36 or 48 hours is painful; the risk of hæmorrhage on their removal, although not great, at any rate exists, and lastly, the necrosed portion of tissues which has been compressed by the clamp remains in the wound after their removal, and may act as a fruitful source of septicæmia. Moreover, with these forceps in the vagina the peritoneal wound is kept open, and the risk of intestinal adhesions or peritonitis is considerably increased. Further, one or both ureters might be compressed by the forceps, as has been done, on occasions, by the most experienced surgeons.

Now, I know there is a considerable difficulty in many cases in applying the ligature. To get over this I have had these needles made, which you will observe are made in such a manner that there is a long arm from the bend in the needle to its point; it is also furnished with a large eye so that it can be readily threaded. These needles can be easily slipped over the uterus and made to pierce the broad ligament at the spot desired, the point being brought out into the vagina and threaded. By this means I find it very much easier to ligature the uterine arteries and lower part of the broad ligature than by any other I have seen. The uterine arteries being ligatured, and the tissues on both sides of the cervix divided, in these cases in which the uterus is not large, the uterus can be readily either retro- or ante-verted, and the

ovarian arteries, and remainder of the broad ligament ligatured.

Should the Ovaries and Tubes be Removed?—In the majority of cases in women who have passed the climacteric I should certainly say no, but in younger women if the ovaries present into the wound I do not think the risk to the patient is increased by their removal. I have but little doubt that they become atrophied in a very short while after the uterus is removed, and cause no trouble when left. Dr. W. Duncan has, however, reported a case in which there were three very sharp attacks of pain, that corresponded exactly with the menstrual periods, showing, indubitably, ovulations with circumscribed peritonitis.

Drainage.—The question of drainage in these operations, as in abdominal operations, is one which has not been, as yet, settled. In these cases which I have narrated I used drainage in some and not in others. In the case that died, I am very strongly of opinion that I lost the patient because I did not drain. The rule that I have adopted is that in those cases in which the diseased uterus is removed without much difficulty I merely pack the vagina with iodoform gauze and do not introduce a drainage tube; but, those cases in which there is much tearing or difficulty in getting the uterus out I consider should always be drained by the introduction of a glass drainage tube, which can be emptied every six hours, or, as often as may be necessary. I prefer glass drainage tubes to rubber tubes, for the reason that they do not collapse when the vagina is packed; and being firm, when the vagina is plugged, any oozing is suppressed by means of the pressure thus exercised. The tube can be removed at the end of twenty-four or forty-eight hours, if there is no appearance of sero-sanguineous fluid.

The Treatment of the Peritoneal Flaps.—The next point of importance, and this is one to which too much attention cannot be paid, is the treatment of the peritoneal flaps. It has been suggested, and practised by some surgeons, especially on the Continent, to unite these flaps by a continuous

suture ; others leave them alone. I have found by experience that the first of these two lines of practice is unnecessary, and the other is fraught with great danger. Now if you will examine the position and condition of these flaps after the uterus is removed, you will find that invariably the peritoneum is curled up and doubled upon itself, so that if they are left alone the whole raw surface has a tendency to drain into the peritoneal cavity ; moreover, should there be any oozing into the peritoneum, this very doubling up of the flaps would be apt to prevent any discharge through the vagina. There is great danger also of a knuckle of intestine becoming adherent to the wound, and trouble being created by this. It is the want of attention to this detail that has led to disaster in many cases. To overcome this I invariably catch the edges of the flaps with long curved forceps, fixing two pairs of forceps on to each flap ; I then draw these firmly down, keeping the ends of the forceps approximated, and then pack strips of iodoform gauze firmly on each side of the flaps, so as to cause the peritoneal surfaces to be brought into accurate apposition. By adopting this practice there is no necessity to unite the flaps by suturing. Should the drainage tube be inserted I pull the flaps well down just the same.

Flushing the Peritoneum.—Before finally packing the vagina it is of the greatest importance that the peritoneum should be thoroughly well flushed out with sterilised water, as often small clots of blood or *débris* are left in the cavity.

Packing the Vagina.—Finally the vagina is packed firmly with strips of iodoform gauze, iodoform being puffed into the canal as each strip is inserted. A winged soft rubber catheter should be inserted into the vagina, and the patient returned to bed.

In those cases in which the drainage tube has been inserted I pass a long narrow strip of gauze to the bottom of the tube. This aids drainage considerably by capillary action. For the first eighteen or twenty-four hours the tube should be emptied by means of a rubber tube fastened to an

ordinary glass syringe, and if at the end of this time all is well it may be removed, or, should there still be some discharge, it may be retained a few days longer. The gauze packing as a rule does not require to be removed until the fifth day. Care should be exercised in flushing the vagina in the early days. I prefer flushing through a Ferguson's speculum, as by this means one is enabled to thoroughly cleanse the vagina and pack in loosely some fresh pieces of iodoform gauze.

There are very few cases of malignant disease of the uterus which cannot be treated in the manner I have explained, but now and again one meets with a very enlarged uterus in which the difficulty of delivery is very great. This was the case in No. 12 of the series I have described. In this case I thought at one time I should have been obliged to divide the viscus into two and deliver the two halves separately. To accomplish this proceeding I should have encircled the broad ligament on either side with an elastic ligature, and then with scissors cut the organ longitudinally in two by inserting one blade of the scissors into the uterine cavity and divided the anterior wall as high as the fundus, and then the posterior wall in the same manner. I should then have pulled one half down, and ligatured the broad ligament in segments and detached it, and then proceeded to do the same to the other side. Such a proceeding, however, would have increased the risk of the operation considerably, as the peritoneum would have come in contact with the diseased and septic organ.

I am greatly indebted to Dr. Plimmer for the reports he has given me of these cases, also for his kindness in putting up the specimens and lending the microscopic slides shown here to-night.

Dr. LEITH NAPIER said that his remarks would take the form rather of asking questions than of relating facts. The important points were: (1) As to the method of drainage—whether with a glass tube, or an india-rubber tube, or simply by means of iodoform gauze. (2) As to the way of treating

the peritoneum. A certain number of cases were lost, not at once but later, through adhesions of the intestines to the edges of the peritoneal flaps giving rise to obstruction of the bowels; this condition might often be mistaken for septic peritonitis. He thought that but little time was lost, and no harm could be done, by stitching the edges of the peritoneum with chromicised catgut, and he was in favour of a drainage tube. By prematurely taking out and replacing the gauze, the flaps, which remained only slightly united for twenty-four hours, might be disturbed; as a rule such interference was prompted by anxiety about hæmorrhage. He would ask whether all these cases, related by the President, or many of them, had been examined after six or eight weeks with a view of ascertaining the condition of the vagina. He was led to ask this, because in the last case he operated on, there was a large cervical cauliflower excrescence, which was removed high up, the remains of the fundus were left, and stitched to the vagina and to the peritoneal flaps. A month later there were little hard nodules in the posterior upper wall of the vagina, which might have been either inflammatory, or malignant recurrence; he applied Paquelin's cautery, and a little hæmorrhage which had occurred three weeks subsequent to the operation, ceased; and the vagina was ascertained to be perfectly smooth before the patient was dismissed. He thought that it was important that the patient should not be sent out too soon after the operation, and that we should make sure that there were not any such nodules remaining. If this precaution were observed, we should probably be troubled with fewer cases of recurrence.

Dr. PURCELL thanked the President for his interesting paper, which covered much of the area of uterine cancer. The opportunities he had had of assisting Mr. Jessett had been very instructive to him. Since 1884, when he began vaginal hysterectomy, he had had about three operations a year, and had done twenty-four, with six deaths. In his first six cases he had no mortality. The ultimate prognosis of the operation must depend on the minute examination of

cases, which ought to be thorough, by the rectum as well as by the vagina, and under an anæsthetic if necessary. It should be seen whether the total removal of the disease was feasible, and whether the vagina was large enough for the necessary manipulations, for it was very objectionable, after beginning an operation, to have to abandon it for want of room, or to have to divide the perinæum. The mobility of the uterus should also be ascertained. If there was much infiltration along the broad ligaments, it was questionable whether the operation should be done at all. It should also be borne in mind that, as in cancer of the rectum, it was sometimes possible to pass a finger all round without detecting an existing infiltration.

As to the method, he agreed with Mr. Jessett. Whether the broad ligament was clamped or ligatured depended in a measure on the mobility of the uterus. When this was fixed, it might be necessary to first clamp and then tie, close to the uterus. This, however, involved more danger to the ureter, resulting in complications later on, and even death. The tying of the broad ligament in sections and dividing, was on the whole the best method. He had always been able, after separating on the left side, to turn out the uterus and tie on the right side from above downwards. He had usually found the hæmorrhage slight. As to the treatment of the vagina, he had always drained with Tait's tube, without packing, and not suturing the peritoneal edges together; he had always found that about the fourth day a flow of pus had taken place, and without drainage there would have been peritonitis. When he did not plug he was able to freely douche, which he did three to four times a day with warm iodine water; he had found this preferable either to boric or to carbolic solutions. Later, a very good vault formed in the vagina. Dr. Edis examined one case with him some time after the operation and thought there was recurrence; but the appearance turned out to be due to the sutures grouped together into a ball. The condition of the vagina felt was then as if the uterus were still *in situ*. When recur-

rence occurred, it might result in a recto-vaginal fistula or a fæcal fistula. As time was limited he was unable to touch on other points in Mr. Jessett's interesting paper.

Dr. HEYWOOD SMITH, referring to the *technique* of the operation, said that as concerned the position of the ovaries, the easiest plan was to leave them *in situ*. There was also less chance of wounding the ureters when the ovaries were left behind instead of being drawn down. He would ask whether any physiological observations had been made to compare the results of removal of the uterus, the ovaries being left, with removal of the ovaries, the uterus being untouched. What was the relative influence of the two procedures on menstruation?

Dr. EDIS said that their discussions, as a Society, gave an expression of opinion to the profession at large, and he would like to emphasise the necessity of early diagnosis. They were often called in, after the broad ligament had been involved, and asked whether partial or total extirpation should be performed, when in reality it was too late for either. One month ago he had seen a maiden lady, aged 63; four of her sisters had died of cancer, and she had a vaginal discharge. She suggested the possibility of cancer to her medical attendant, but he did not examine her. On seeing her he found a number of small projecting masses in the uterus. He afterwards removed these, and then found that they consisted of small round-celled sarcoma. It was very important that the early stages should be recognised by the general practitioner. He had done all forms of the operation, and he was sure that if cases were only recognised early enough we should often be able to do the partial operation, the results of which were very good, and the risks of which were less. When the disease had passed beyond the local stage we should be very careful as to operating, but there was here a field for caustics, as employed by the President. In doing total extirpation it was easy to overstep the bounds of prudence, for there was so much recurrence. The later history of these cases of Mr. Jessett's would be very interesting. Of

course, it was well to add a year to a patient's life when possible, even if the disease ultimately recurred, as in a case of his which died lately, and where he had operated two years ago. He got away all the disease at the time, but there was a constitutional tendency which showed itself again later. The President was a skilled operator, and in his hands hysterectomy might not be very difficult, but those who had not seen the difficulties of the operation, and who had only read descriptions of it, ought not to go away with the idea that this was a simple and easy operation. On the contrary, it was very difficult, and he thought that unless a man had had considerable experience of these cases he ought not to undertake them. And, in any case, an early diagnosis was advisable, so as to admit of the simpler operation of partial extirpation. He had seen many partial and total hysterectomies; nevertheless, they were cases which he always regarded with considerable anxiety.

Dr. BANTOCK congratulated Mr. Jessett on his paper. He thought that Dr. Lawrie's case also ought not to be overlooked, as it was a good example of what was sometimes found in old women. When a woman past the menopause had hæmorrhage the uterus should always be explored; we should nearly always find that she had organic disease, and generally epithelioma. A very important question was the stage that the disease had reached. Sarcoma was even more malignant than carcinoma. The test of the stage the disease had reached was the mobility of the uterus, but there was a point at which it was very difficult to say whether the uterus was movable or not, *i.e.*, when the organ was either quite free or quite fixed it was easy to decide whether to operate or not; the difficulty was with cases on the boundary line. The patient herself should be first thought of, and if it was possible to prolong her life by only one year the operation should be undertaken. The method would depend on the operator. He preferred the ligature to the clamp, as being more practical and more efficient—he might almost say more scientific. For the suture he preferred catgut—not chromi-

cised, for that did not melt away quickly enough. He always prepared his own catgut. At first he used to use silk, but he found it did not come away till the whole tissue had sloughed ; but with the catgut the loop was dissolved in a convenient time and the whole suture separated without difficulty. Formerly he used a glass drainage tube, but he had abandoned it in favour of iodoform gauze, which he had found very good. It was not necessary in all cases to pull down the edges of the peritoneum, which curled up naturally, especially the posterior flap. If he found it necessary to drain Douglas's pouch he passed a strip of the gauze up into it. The frequency with which gauze required to be changed depended on the hæmorrhage, but this would be found to be very slight if all the vessels were secured as the operation went on. He did not close up the peritoneum, but had seen Olshausen do so ; it was, however, necessary to have sufficient room to do this.

Mr. REEVES had had seven cases of vaginal hysterectomy. He agreed as to the necessity of obtaining an exact diagnosis by careful examination of the uterus, under an anæsthetic if necessary. The broad ligaments were the first parts secondarily involved because they contained the lymphatic channels leaving the uterus. In the securing of the broad ligaments he had not employed the ligature except for tying the uterine arteries, and had never yet included a ureter. He failed to see how the ureters could cause difficulty as long as the bladder was well separated and pushed up, unless involved in the cancer. The first step was to tie the uterine arteries close to the uterus ; this might mean in some cases leaving a portion of the diseased uterine tissue attached. He had removed the ovaries in some cases, not in others, but they might give rise, if left, to menstrual troubles, and in one case he had known a tumour to form in one of them. In his first case, where there had been much hæmorrhage, the uterus was very large, he left a dozen forceps on and used no drainage ; he thought this last fact was the cause of the fatal result which ensued. Yet, though it might sound paradoxical, he

had neither ligatured nor drained since, but he had practised flushing out of the wound. He thought the use of the clamp forceps shortened the procedure. The question was, was the operation worth doing? There was in some cases general cancerous disease, and it might be discovered in one of the internal organs not very long after the operation. He agreed with Dr. Edis that hysterectomy was a difficult operation. But further, should it be said that this Society thought that hysterectomy was the proper thing to do even in 25 per cent. of cases of uterine cancer? Often the uterus might be removed, and the disease still left behind. In suitable cases he was in favour of the operation, which, if successful, eased pain, relieved the mind, and prolonged life.

The PRESIDENT, in reply quite agreed with most of the speakers, that vaginal hysterectomy was not an easy operation, except when the uterus was prolapsed.

Taking up certain points rather than individual speeches he said he would just mention:—

Drainage.—He thought that in nearly every case drainage should be used; he preferred a glass tube, because, by packing round it, a certain amount of pressure against the flaps could be obtained, and this both checked the hæmorrhage and allowed the flaps to act as valves which should permit egress, but not ingress, of fluids. Rubber tubes became compressed if the vagina was packed. Gauze was a difficult thing to change; for one was apt to tear open the adhesions which had formed, whilst the glass tube could be emptied by means of a syringe and rubber tube. But he generally passed a piece of gauze into the glass tube.

Obstruction.—It had been pointed out that where the clamp was used there had been a certain number of cases of intestinal obstruction, probably because the intestines adhered to the raw edges of the flaps. There was much less risk of this if the flaps were drawn down. He agreed with Dr. Bantock that it was most difficult to stitch the flaps, because the parts were very high up, and all the manipulations had to be done

by touch. He always removed the gauze in about four days. At the end of the twenty-four hours the flaps would nearly always be found to be firmly united, and there would be no danger in removing the gauze then, but it was rather safer to leave it longer.

Sutures.—When silk was used it would often be found after several months, that the sutures were causing some irritation; when they were removed the symptoms subsided. Dr. Purcell had said that he drained but did not pack; for his own part he regarded the packing as the more important.

Ovaries.—After the menopause he should not remove them, but he should do so before if they came into the wound. He did not think that their removal increased the risk of wounding the ureters; he agreed with Dr. Edis as to the importance of early diagnosis; but with sarcoma or carcinoma of the fundus this was not at all easy. He had tried many kinds of catgut, but his difficulty was that he could not get it strong enough.

In conclusion, he thanked the Fellows for the interest and attention they had accorded to his paper.

THE BRITISH GYNÆCOLOGICAL SOCIETY.

THURSDAY DECEMBER 14, 1893.

F. BOWREMAN JESSETT, F.R.C.S., PRESIDENT, IN THE CHAIR.

PRESENT :—28 Fellows.

The PRESIDENT read the following letters, addressed to, and received from Lady Clark, conveying her thanks for the letter of sympathy sent in the name of the Society.

"TO LADY CLARK.

"MADAM,

"We, the President and Secretaries of the British Gynæcological Society, in conformity with a resolution passed unanimously at a general meeting of the Society, held at 20, Hanover Square, on November 9, 1893, beg, in the name of our Society, to tender you our deepest and most respectful sympathy in your recent great bereavement. We recognised in the late Sir Andrew Clark a true friend to all honest scientific work; one who, by his bright example of courtesy, tact, and fearless honesty of purpose, did much to break down professional jealousies, and reconcile divergent opinions. As a great influence for good once established can never die, so we feel that his good work done for the weal of his profession will be cherished not only by these of us who had the privilege of knowing him personally, but also by those others, who, in the times to come, will learn his honourable history, and experience that, although dead, he yet speaketh.

"Yours most respectfully,

"F. BOWREMAN JESSETT, F.R.C.S., *President*,"A. D. LEITH NAPIER, M.D., } *Secretaries.*

"F. F. SCHACHT, M.D., }

"20, Hanover Square,

"November 12, 1893."

"DEAR SIR,

"I am requested by Lady Clark to express to the members of the British Gynæcological Society her deep gratitude for their expression of sympathy.

I am, yours faithfully,

"L. D. NIGHTINGALE.

"16, Cavendish Square, London, W.

"November 18, 1893."

The PRESIDENT then referred to the loss they had sustained by the death of Dr. Arthur Wellesley Edis. Dr. Edis was a man whom to know was to esteem. He was a man not only courteous and gentle, but also of decided views. He always contended that obstetric physicians should perform gynæcological operations, and did not fear to express his views boldly on any action that he did not approve of. Acting in this spirit, he had resigned his appointment at the Soho Hospital; and later he had resigned the post of Obstetric Physician to the Middlesex Hospital, as he had not sufficient power to operate in gynæcological cases. He was a great loss to the Society, of which he had been President and Treasurer. He had been cut off in the prime of life, after attaining to eminence solely by his own exertions. By constant and patient effort he had made his way from the bottom of the ladder to the top. He felt sure that he was expressing the unanimous wish of the Society in moving that a letter of sympathy and condolence should be sent to Mrs. Edis in the name of the Society.

SPECIMENS.

BODY AND NECK OF CANCEROUS UTERUS REMOVED BY CHLORIDE OF ZINC. By F. A. PURCELL, M.D.

The specimen I present to-night is that of the body, neck, and remains of the os of a uterus, brought away by means of chloride of zinc, taken from a patient named Emily S——, aged 44, married, admitted to the Cancer Hospital on November 15, 1893. The patient is the mother of eight children. There was no family history of malignant disease; she had suffered pain in the back for the past twelve months, had lost a large quantity at the monthly times, but not between the periods except after coitus. She had not lost flesh. On examination, the condition found was a hard nodular growth in cervix extending to anterior vaginal wall, and which seemed to extend to the left broad ligament. The uterus was movable, there was no bleeding on examination;

urine 1034, acid, no albumen. Owing to the infiltration of the left broad ligament, and the fact that the disease extended on to the vaginal mucous membrane, vaginal hysterectomy was not considered advisable.

November 25.—As a palliative alternative, the neck was dredged to about the depth of one inch, cleansed and dried, the vagina was moistened with soda solution, the neck was then plugged with two small pieces of cotton wool soaked in chloride of zinc solution; prior to these insertions the plugs were squeezed dry. A cap of india rubber was placed over the os and secured by two transverse silk sutures passed through the edges of the os. The vagina was then plugged with tampons soaked in soda solution.

November 29 (The fourth day after).—The plugs were removed. Temperature last three nights, 101°.

December 8 (thirteenth day).—The large body shown came away; no pain. Has been passing urine in bed. On examination pain was felt in the rectal region, and the remains of a body could be felt high up, as if another slough was to come away. Since then she has improved, and little or no discharge comes away; she has now command over the bladder, and the bowels are duly normal. After the seventh day temperature fell to normal.

The report of the pathologist I herewith annex, and this case will further add another to those presented by our President to the Society, and treated by the same method. I wish to draw attention to the specimen in which the excavation into the neck is much less than in any of those previously exhibited by our President, and at the same time to mention that a more solid body has been got away.

Pathological Report by Mr. Plimmer.

The specimen consists of almost the entire uterus, with orifices of Fallopian tubes and os uteri. It measures three and a-quarter inches from fundus to extremity of cervix, is one and three-quarter inches wide at lower, and two and a-quarter inches at the upper part. Its weight is three and a-quarter ounces.

A piece taken out of the posterior wall and examined microscopically shows healthy uterine tissue, with masses of sarcoma cells invading it, with some hæmorrhages. In that particular part the line of the slough seems to have gone through healthy tissue, and thus to have got clear of the disease.

Dr. LEITH NAPIER asked what was the exact condition of the specimen, with special reference to the peritoneum. Had the serous covering of the uterus been removed with the slough, or had it been left behind? He suggested that in view of the importance of the specimen it should be referred to the Pathological Committee.

Dr. HEYWOOD SMITH inquired how the application of chloride of zinc to the cervix could affect the whole corpus uteri?

Dr. ROUTH asked what became of the portion of vaginal tissue affected, and if Dr. Purcell could explain how so large a portion of tissue came away?

Mr. JESSETT said that since the three cases of this kind that he had brought before the Society, he had had under his care a case of carcinoma of the cervix, in which the surrounding tissues were not implicated. The patient did not object to treatment by caustics, but would not consent to supra-vaginal amputation. So he curretted away the disease as far as possible, and packed the cervix with chloride of zinc. The patient made a good recovery. Later, it was found that the body of the uterus remained intact, and apparently free from disease, whilst the cervix sloughed away. He found the action of the carbonate of soda on the chloride of zinc prevented the caustic action at the external os where the two solutions met. To obviate this he had hit upon the device of placing over the caustic tampon an india-rubber cap or ring pessary with an india-rubber diaphragm. Being present at Dr. Purcell's operation he had suggested this plan, which Dr. Purcell at once acted on, with, as he had shown, perfect success.

Dr. PURCELL, in reply, gave an account of the method

of preparing the chloride of zinc tampons, which were first soaked in the saturated solution of the caustic and then squeezed dry. The peritoneal covering of the uterus had remained unaffected; there was no peritoneum covering the specimen. Referring to Dr. Heywood Smith's question, he could not say how it was that so large a body of tissue had come away, for the disease had only excavated to a depth of about one inch, as could be seen by looking at the specimen. It must be remembered that the original measurement of the size of the mass was probably greater than was given in the pathologist's report, because the effect of the chloride of zinc would be to cause the tissues to contract. The packing did not occupy an area of more than about three-quarters of a square inch. Dr. Purcell thanked the President for the innovation of using and applying the rubber pipe cap to pack down on the tampons.

Dr. HEYWOOD SMITH suggested that the india-rubber cap would prevent the exit of the caustic, and so allow it to act on the parts of the uterus higher up.

CYST OF FALLOPIAN TUBE. HÆMATO-SALPINX. DOUBLE
HÆMATO-SALPINX WITH MYOMA OF UTERUS. By
JOHN W. TAYLOR, F.R.C.S.

Mr. J. W. TAYLOR (Birmingham) showed three specimens.

(1) This was a cyst of the Fallopian tube, presumably a hydro-salpinx, with a twisted pedicle. Only two other cases are recorded, viz., Bland Sutton, "Diseases of Ovaries and Fallopian Tubes," p. 257, and Veit, *Centr. f. Gyn.*, May 30, 1891. The patient was 30 years of age. She was married at 19, and had a child a year after. She then suffered from chronic retroflexion, and remained sterile for seven years. Mr. Taylor performed Alexander's operation, and shortly after this she became pregnant and was confined this year at term. Two or three months afterwards she had abdominal pain, and a tumour was found. The abdomen was opened and the tube removed. It would be interesting to know

whether the replacement of the uterus by the Alexander's operation had anything to do with the causation of the twisted pedicle.

(2) This was a case of hæmato-salpinx which had an important bearing on the question of tubal menstruation. The patient was a single woman, aged 33. The vagina was absent, and it was thought that the uterus was absent also. She had a tumour on the right side of the abdomen, and suffered much pain, which became worse at every menstrual period. On opening the abdomen it was found that the left ovary and tube and the left half of the uterus were absent. Mr. Taylor removed the ovary and tube of the right side. On thinking it over afterwards, he reflected that as the uterus was left, there might still be menstrual trouble, and that it might be necessary to operate again. But the operation was a year ago, and so far there had been no trouble, and the uterus had not become distended. He thought that this case supported the view of some recent observers (Landau and Rheinstein, *Arch. f. Gyn.*, B. 42, p. 273), that the tubes played a considerable part in the phenomena of menstruation.

(3) This was a double hæmato-salpinx, from a case in which there was also a myoma of the uterus. On one side there was a nodule of the tumour which compressed the uterine end of the Fallopian tube on that side.

Dr. LEITH NAPIER said that he understood that in the second case the vagina was absent, and that there was a tumour on the right side; but that there was no retention of menses in the uterus. This being so, he did not see how the removal of the tube threw any light on the subject of tubal menstruation. He had recently seen a case at the Chelsea Hospital for Women, under the care of his colleague, Dr. Fenton, where the vagina was absent. On two or three occasions an attempt had been made to form a vagina, but ineffectually. The abdomen was opened, and both ovaries and tubes, which were found congested and enlarged, were removed; but in this case there was hæmatometra. Mr. Taylor's specimen was so rare and valuable that he would like to hear further particulars of the case.

Dr. BANTOCK said that while menstruation from the tubes undoubtedly occurred in some cases, he was not prepared to accept the view that this was a normal occurrence. Otherwise we should find the tubes distended with blood much more often than was the case. The fact that after operation there was no accumulation of blood in the half of the uterus left behind had no weight, because removal of the ovaries had ordinarily the effect of arresting menstruation.

Mr. TAYLOR, in reply, said that he did not think this case was conclusive; but the fact that the tube was found to be distended on operation, while the uterus was apparently empty, supported the theory of tubal menstruation.

MALIGNANT DISEASE OF THE UTERUS. Two Specimens by
F. BOWREMAN JESSETT, F.R.C.S.

Mr. JESSETT showed two specimens of carcinoma of the uterus.

(1) The patient, who was 45 years of age, had suffered from hæmorrhage for five months. On the introduction of the sound for examination of the cavity of the uterus, there was a good deal of hæmorrhage. A large elastic tumour was also felt on one side of the uterus. The diagnosis was sarcoma of the uterus. Operation was advised, and was performed a week ago. On freeing the uterus, a large cyst of the broad ligament was found. This was emptied, and there was then little difficulty in separating it with the uterus. The patient had made a normal and easy convalescence, never having had a bad symptom.

(2) This specimen showed the advantage of early diagnosis. The patient was seen by Dr. Heywood Smith, who diagnosed carcinoma of the body of the uterus. With his usual precision, he curetted before finally expressing an opinion, and having found malignant disease, sent the patient to him (Mr. Jessett). The operation went off satisfactorily, and the patient made an excellent recovery. As regards

the first case, it was the first instance he had come across of cyst of the broad ligament associated with malignant disease of the uterus.

Dr. PURCELL congratulated Mr. Jessett on the successful result of these two cases, and especially of the first, in view of its difficulty. When a patient had passed the fourth day, after vaginal hysterectomy, she was usually on a fair way to recovery, unless any internal organs had been damaged, which was not the case in this instance.

Dr. HEYWOOD SMITH called attention to an article in a recent number of the *American Journal of Obstetrics*, on the subject of hysterectomy, in which the writer advised the use of catgut, on the ground that it was the only kind of ligature that came away satisfactorily. He would like to ask the President if he had used catgut, and if so, what was his opinion of it.

Dr. BANTOCK said that catgut ordinarily melted away in twelve days; chromicised gut and silk will not come away for weeks or months, and in his opinion, gave more trouble. If buried, these sutures were apt to cause irritation, and if not buried, they formed a channel for sepsis.

Mr. JESSETT in reply, said that he had found silk the most reliable material. He did not agree with Dr. Bantock as to the coming away of the ligatures; if the flaps of peritoneum were drawn down, the whole of the sutures would come away in a bunch in a fortnight. Of course, if buried, they would not come away; but in that case they formed no channel for sepsis, and became encysted, and there was no danger from them; they acted, in fact, in the same way as the silk ligatures used for securing the broad ligament in cases of abdominal section.

HYSTERECTOMY BY THE CLAMP OPERATION, A SPECIAL METHOD FOR ITS PERFORMANCE (WITH CASES). By J. W. TAYLOR, F.R.C.S., Surgeon to the Birmingham and Midland Hospital for Women.

The wire-clamp (or "serre-nœud") operation for hysterectomy appears to have lost much of its interest during recent years. The operators of to-day are chiefly concerned with

intra-peritoneal methods of stump-treatment or total extirpation of the uterus, and any recommendation of the older operation may perhaps be somewhat out of touch with the spirit of the present time. But every surgeon knows that occasionally—and often when the conditions are worst—the clamp operation is the only treatment available, and the best methods of its performance must therefore still be an object of practical interest.

It is true that all clamp operations are to a certain extent clumsy, and have hitherto been tentative in character, but there is this important difference between the clamp operation for ovariectomy and the one I am now discussing, that whereas the former gave way to a simpler, quicker, and safer method of treatment; it cannot be said, I think, that complete extirpation of the uterus and intra-peritoneal treatment of the stump are either simpler, quicker, or safer than the clamp operation for myoma.

But this depends very much on how the clamp operation is done. The secret of its success depends very largely on the perfect closure of the peritoneum round the stump, and a special way of effecting this I purpose now to consider.

In 1885 (June 6), after watching several cases of hysterectomy by the clamp operation, I came to the conclusion that this might be both simplified and improved by some important alterations in the usual method of operating. In particular it appeared to me that the temporary rope clamp or elastic ligature was often unnecessarily used, and that a ready means of entirely shutting off the peritoneal cavity from the stump was altogether lost sight of or neglected. I saw that the peritoneal cavity could be absolutely isolated from the stump *by the inclusion of the parietal peritoneum within the wire of the clamp*, and with this as its essential feature, I then drew upon paper a clamp operation for hysterectomy, which, when practicable, would, I believed, give better results than the methods in usual practice.

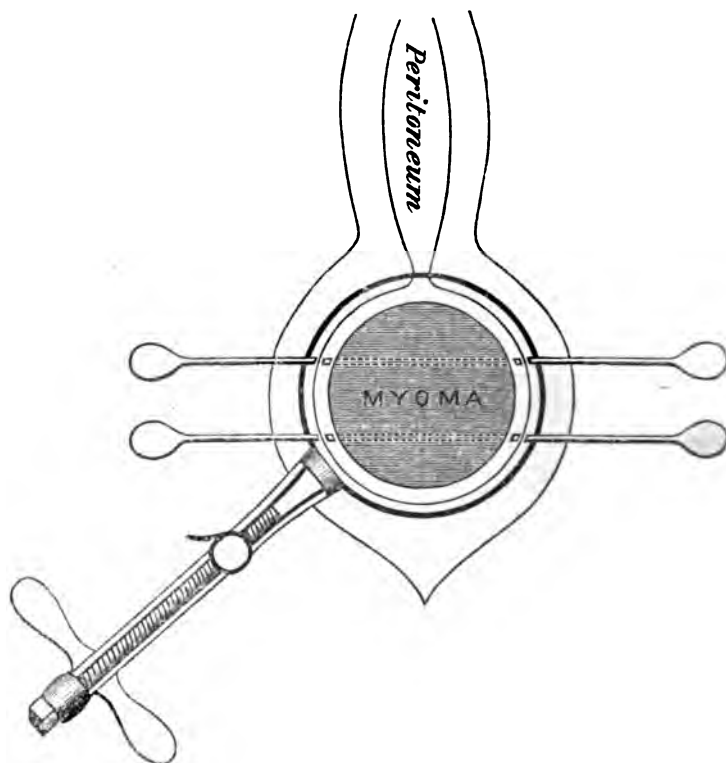
For some years I had no opportunity for testing this operation. I had watched many untoward results of hysterectomy

for myoma, and had deliberately chosen the removal of the appendages or an expectant treatment (when the patient was nearing the menopause) as the only justifiable methods of treatment for myself. To this, as time went on, I added the occasional treatment by electrolysis. For a long time I found no real necessity for hysterectomy. Although every case of myoma on which I operated was regarded by me as a possible case for removal of the uterus, I found almost always that by taking pains, by a larger incision, by alteration of the position of the tumour from the vagina, by raising the appendages from below, or as in one case, by temporarily turning the whole tumour outside of the abdomen, the operation of removal of the appendages was to be satisfactorily completed. With the final result of this operation I have been, with but few exceptions, fully satisfied. In some of the cases the convalescence has been a protracted one, the operation being followed by a hæmatocele or local abscess on one or other of the local sites where the removal has been carried out, but only in one case (out of fifty operations) has the patient died.

During recent years, however, I have occasionally met with cases in which the treatment by removal of the appendages was either impracticable or manifestly inadequate—cases too in which no benefit was to be derived from expectant treatment, and in some of these cases (five in number) I have used the operation already roughly described. In each case the operation has been followed by a good and easy recovery, and I think the method I practise presents so many and such plain advantages that it is worthy of more extended use. The operation is done as follows:—

(1) The abdomen is opened in the middle line, and the bulk of the tumour is disengaged from the peritoneal cavity and drawn outside the incision in the usual way. After attending to adhesions, the position of the appendages of the bladder and of the rectum are especially investigated, and, if necessary, the uterine attachments of the broad ligaments are separated between double ligatures. Unless this is really necessary, it is much better to leave the peritoneal covering of the uterus intact.

(2) Then the transfixion pins are used, being passed through the peritoneum of the right side of incision, then through the base of the pedicle of the tumour, and finally through the peritoneum of the left side of incision. Two or



Sketch of stump with pins and wire of *serre-nod* in position (diagrammatic). Two pins are depicted in the illustration ; three are sometimes necessary.

three of these pins are used, according to the size of the stump. The ends rest upon the skin surface, but the pin does not transfix any part of the incision-edge except the peritoneum.

(3) The wire clamp is now put on immediately below the pins (and therefore outside the peritoneum). As this is done the opposing edges of the peritoneum, immediately above and

below the stump, are caught together by forceps, and the points of these are included in the loop of wire. By this means it is usually easy to arrange that the parietal peritoneum is caught up by the wire of the clamp all round the pedicle of the tumour. (When the latter rests just above the pubes and the parietal peritoneum has not been divided too low down, the peritoneum being slightly elastic, can be fitted round the pedicle without forming any lower angle; the only point, then, which requires special care is that formed by the opposing edges of the peritoneum just above the pedicle.) The clamp is now tightened, the whole of the wire being strictly extra-peritoneal, and compressing the pedicle of the tumour through a single layer of peritoneum throughout the whole of its course.

(4) The tumour is cut off. The abdomen and pelvis are carefully cleaned by sponges from the open part of the incision above the stump, the incision is closed, and the stump is trimmed and treated with solid perchloride of iron and iodoform.

Such is the plain description of a simple operation. If a pedicle has to be made by enucleation some kind of temporary compression is necessary before the pins can be passed. In this case I prefer the use of some elastic tubing, believing that this is less likely to injure the vitality of the pedicle than the rope clamp. Unless a temporary clamp is absolutely necessary for special manipulation of the tumour in order to form a pedicle, I much prefer to dispense with its use. It involves waste of time, and may be a source of special danger.

The following cases, given in rough outline, may be cited in illustration of my paper:—

Case I.—E. S., single, aged 46, had suffered for four years from an abdominal tumour, which for one year had been growing rapidly. Girth $38\frac{1}{2}$ inches.

Operation, July 13, 1892.—Large myoma of uterus. Temporary elastic ligature applied and tumour removed (weight $19\frac{1}{2}$ lbs.). Two pins used and wire clamp applied immediately below these. The parietal peritoneum was sewn to the stump

below the clamp. Clamp separated and removed on August 5. Recovery and discharge on August 25. (This was a transitional case, in which the wire of the clamp was strictly extra-peritoneal, but the parietal peritoneum was united to the pedicle by stitches. These were omitted in succeeding cases.)

Case II.—E. D., married, aged 42, had suffered from a bleeding myoma for several years, and had been operated on by me (in 1890) for removal of the appendages, but only those of the right side could be found. The operation had but little or no effect in restraining hæmorrhage.

Second operation, August 30, 1892.—Uterus drawn out of incision. Two pins used, transfixing parietal peritoneum on each side as well as pedicle of tumour. Wire clamp applied immediately below these and tumour cut off. Clamp removed on September 10. Patient discharged on September 27. Good recovery.

Case III.—M. E. W., married, aged 20. Tumour of abdomen for upwards of a year; supposed at first to be due to pregnancy. On admission to hospital the case was diagnosed as one of multilocular ovarian cyst.

Operation, October 29, 1892.—Large multilocular cyst of left ovary, with gelatinous contents which had to some extent escaped into the peritoneal cavity, causing peritonitis. The cyst was largely intra-ligamentary, embedded in the pelvis, and could not be separated from the uterus. It was enucleated as far as possible, and the base of the cyst, together with the right horn of the uterus, removed by the wire-clamp. Two pins were used, passing through the parietal peritoneum on each side as well as the uterus, and the wire adjusted immediately below these. The clamp separated and came off on the thirteenth day. The patient was discharged on December 9. This patient had some peritonitis on admission, and her general condition for some time after operation was decidedly serious, the pulse rate being especially high (between 120—140). There was no local trouble, and the patient in the end made a good recovery.

Case IV.—E. L. L., single, aged 41; history of abdominal

enlargement for some months. On Sunday, May 28, 1893, was seized with violent pains while out for a walk, and had to be brought home in a cab. On examination with Dr. Dudley (May 31), a prominent, tense, and exquisitely tender tumour was found, filling the abdomen. The tumour was obscurely fluctuant on palpation, the patient constipated and sick. A tentative diagnosis was made of ovarian tumour with twisted pedicle.

Operation, June 2, 1893.—Abdomen found to contain a large fibro-cystic tumour of uterus, at one part inflamed apparently from thrombosis of large veins or venous sinuses near the surface of the tumour. Two pins were passed, transfixing the parietal peritoneum on both sides, as well as the base of the tumour, and a wire clamp was adjusted below these. By means of catch forceps above and below, a perfect enclosure of peritoneum was secured, and on tightening the clamp the pedicle was entirely ensheathed by the parietal peritoneum. The tumour was then removed (weight 7 lbs.).

The clamp was removed on June 16. The patient was discharged on July 2. Good recovery.

Case V.—S. H., married, aged 50. History of tumour of the uterus of some years' duration. This had latterly been rapidly increasing in size. On each side of a central tumour of more or less solid consistence was a cystic mass, that on the right side being abdominal, that on the left side pelvic and fixed. These were diagnosed as ovarian cystomata, complicating myoma of the uterus, and it was hoped that they might be removed without disturbance of the latter.

Operation, September 4, 1893.—Main tumour found to be a soft œdematous myoma of the uterus (or fibro-cystic tumour), one of the nodules on the right side (mistaken for ovarian cystoma) being absolutely cystic. The left ovary was the seat of cystoma, and adherent in the pelvis below the tumour. The right ovary was atrophied. It was necessary to completely turn out the tumour from the abdomen in order to separate the adhesions and remove the ovaries. The removal was a difficult process, and took considerable time, and

after this had been completed it was judged wiser to remove the myoma than to return it. The peritoneum of the lower part of the incision was fitted round the pedicle of the tumour (without forming any lower angle), and this with the enclosed pedicle transfixed by two pins. The upper opposing edges of peritoneum were held by forceps while the wire clamp was adjusted below the pins. The tumour was cut off (weight $4\frac{1}{2}$ lbs.), and after cleaning the peritoneum from the upper part of the incision the latter was closed.

Clamp removed on September 28. Patient discharged to Convalescent Home on October 7. Good recovery.

Dr. BANTOCK had followed the reading of Mr. Taylor's paper with much interest. Many years ago experience had taught him the necessity of adapting the peritoneum around the stump and securing the edges below the level of the wire loop. Although Mr. Taylor had had very good results, they were not better than he had obtained in similar cases within the period indicated, and, in his opinion, there were serious objections to the plan advocated. He was, therefore, not prepared to adopt it. One of the most important steps in this operation was to secure the peritoneum around the stump below the level of the wire loop, at such a distance as to be beyond the area of sloughing, and he did not see how this was to be accomplished by Mr. Taylor's method. His own plan was to draw the peritoneum taut around the stump by pulling both sides equally, and then passing a suture (of fine silkworm gut) through the peritoneum, about a-quarter of an inch from its edge on one side, through the back of the cervix, a-quarter of an inch below the wire loop, and then through the peritoneum on the opposite side. When this suture was tied, the peritoneum from each side was firmly fixed in the middle line to the back of the cervix. The free peritoneal edges were then separately secured by three or four sutures of catgut, of which the ends were cut off short. In closing the parietal wound, the suture next the stump included all the layers except the peritoneum, and into the angle formed with the stump a narrow strip of

iodoform gauze was inserted for the purpose of securing drainage. He failed to see how Mr. Taylor's plan could insure more efficient closure of the peritoneum than his own. But there was, on the contrary, the serious objection to his (Mr. Taylor's) plan that it of necessity involved sloughing of the whole of the peritoneum included in the *serre-naud*. His own object was to secure adhesion of opposing peritoneal surfaces by a healthy process which involved no destruction of tissue. It was impossible to limit the sloughing process, so that on one side of the narrow wire there should be dead tissue, and on the other absolutely healthy tissue. Moreover, Mr. Taylor still adhered to the iron wire, the oxidation of which always produced some amount of destruction of tissue, and he seemed to be unaware of the advantages in this respect of the delta metal which he (Dr. Bantock) had introduced to the notice of the profession. In the case of a fat subject he felt sure Mr. Taylor's method would be attended with difficulties he seemed to be unaware of. Of course, these remarks applied to the comparatively simple cases which Mr. Taylor had cited. In the difficult cases, of which he had given examples repeatedly to the Society, and the mode of treating which he had explained on several occasions, the plan would be quite impracticable.

Dr. PURCELL said that there were only comparatively few cases in which the pedicle of a myoma was long enough to allow the stump to be drawn up, and Mr. Taylor had been fortunate in seeing so many. On the accurate apposition of the peritoneal flaps depended the rendering of the extra-peritoneal operation. He alluded to Dr. Bantock's method and teaching, which he had followed. Dr. Bantock had not sufficiently explained his method, and had not gone far enough to-night.

Mr. CHRISTOPHER MARTIN had assisted Mr. Taylor in one of his hysterectomies, and had seen him operate in other cases, and he had been struck by the ease with which the peritoneum could be included within the grasp of the clamp, and by the good recovery of the patients. He thought the method better than that of Dr. Bantock, because in the latter

the whole security of the peritoneum depended on the tension of one suture—the one, namely, next to the uterus—whilst in Mr. Taylor's method the peritoneum was secured all round the stump by the wire, and it was quite impossible for septic matter to trickle down and infect the peritoneal cavity. But the method might, no doubt, be difficult of application when dealing with a large myoma, especially if interstitial, and it might be difficult to use in such cases as required the elastic *tourniquet*.

Mr. TAYLOR, in reply, said that the importance of the absolute closure of the peritoneum was undoubted, as shown by the care bestowed on this point in all the best literature of the subject. He was glad to know of Dr. Bantock's method, but, as Mr. Martin had said, it depends on a single stitch, and the closing of the peritoneum could not be so sure or so complete as was the case with his own method. Further, the clamping process was very easy, and, therefore, quick, and when the parietal peritoneum was included it almost always led to a rapid recovery, in many cases as uneventful as after hysteropexy. The size of the pedicle was of but little importance in operating by this method, and he considered that it was applicable to every case in which the use of a wire clamp was advisable. If there was one instrument liable to be a source of danger from sepsis it was a clamp; and he felt sure that some of the bad results he had seen after hysterectomy were due to this cause, but by the inclusion of the peritoneum the danger was averted. Finally, his method contrasted favourably with Dr. Bantock's, and all other suture methods, in that the closure of the peritoneum round the stump was obtained without any puncture of the pedicle below the clamp—an occasional source of dangerous hæmorrhage.

BRITISH GYNÆCOLOGICAL SOCIETY.

JANUARY 11, 1894.

F. BOWREMAN JESSETT, F.R.C.S., PRESIDENT, IN THE CHAIR

SPECIAL GENERAL MEETING.

PRESENT :—33 Fellows.

Dr. LEITH NAPIER read the following excerpt from the Minutes of Council of May 9, 1893 :—

“It was pointed out that there seemed to be a contradiction between paragraphs 2 and 3 of Section VII. of the Articles of Association, and paragraph 7 of Section I. of the Bye Laws. After discussion it was unanimously agreed to let both Bye Laws and Articles stand as at present until next Annual Meeting, when the Articles might be amended by deleting paragraphs 2 and 3 of Section VII.” Also the following, from the Minutes of the Council of December 12, 1893 :—“In accordance with the resolution agreed on at the 80th meeting of the Council, it was agreed to issue notices for a General Extraordinary Meeting of the Society, special business being the harmonising of the Bye Laws, paragraph 7, Section I., and the Articles of Association, paragraph 2 and 3, Section VII.” The matter being brought before the Special General Meeting, it was unanimously agreed, on the motion of Dr. Leith Napier, seconded by the President, to delete paragraphs 2 and 3 of Section VII. of the Articles of Association.

ANNUAL MEETING.

Treasurer's Report.

The TREASURER in presenting his Report for the year 1893, said the Society was to be congratulated on having passed a very prosperous year financially as well as in all other respects.

The first item which called for notice was the subscription list, which amounted to £388 2s. 10d., as against £328 12s. 11d. the previous year—an increase of £60. This was due in the first place to the liberality and readiness with which the Fellows had kindly paid in their subscriptions, and secondly, to a considerable addition of new Fellows during the year. This was a matter for genuine satisfaction. In a large Society like the Gynæcological, with 500 Fellows, there must be an inevitable loss every year from death, retirement, and other causes, and it was a great thing to more than counterbalance that loss by the addition of new members. He was pleased to say that a very few had withdrawn their names from the Society during the year.

The second item of importance was the sum derived from advertisements in the Journal. The thanks of the Society were due to the Editor, Dr. Fenwick, through whose personal efforts the advertisements had been obtained. He anticipated that now the secretary, Dr. Leith Napier, had kindly consented to edit the Journal, and to bring new energy to bear upon the point, this sum would probably be much increased when the next report was presented.

Turning to the other side of the account—the expenditure of the Society—it was seen some small economies had been effected. Two large sums were needed to meet the *expenses of the Journal* and the items of *rent and attendance*. These constituted the chief expenditures of the Society. It was not to be expected that the cost of the Journal would diminish. On the contrary, the better and more efficiently the work was carried out, the greater would be the cost of production. Dr. Fenwick had been very careful in this respect, and in the interests of the Society had always curtailed and avoided what he considered unnecessary expenditure. The subject of rent had been before the Council on more than one occasion, and several suggestions had been entertained and discussed; but it appeared to be difficult to improve on the present situation.

The result was a balance at the end of the year of £266 16s. 4d., against £186 2s. with which the year commenced—an increase of £80.

Dr. RECEIPTS AND EXPENDITURE FOR THE YEAR ENDING DEC. 31, 1893. **Cr.**

We hereby certify that we have examined the above account with the counterfoil receipt books and vouchers in connection therewith, and find it to be correct. We also certify that the Society holds the following Securities:—£270 Grand Trunk Railway 4 % Debenture Stock; £5 Caledonian Railway 4 % Preference Stock; and £100 on Deposit Account with the London and County Banking Company, Limited—all in the Treasurer's possession.

C. H. BENNETT, M.D.
ROBERT HUGH HODGSON, L.R.C.P., &c. }
Auditors.

He added that the post of Honorary Treasurer was by no means a sinecure. It might, he thought, be far more correctly termed Honorary Collector. The collection of so many small sums entailed an enormous amount of correspondence. He made a point of attending to all communications the same day, and allowed no accumulation of arrears. Those Fellows were the best friends of the Society who kindly forwarded their subscriptions to the Treasurer at the commencement of the year, without waiting for any application from him.

Dr. TRAVERS moved that the best thanks of the Society be given to the Treasurer for his Report, and for the able way in which he had managed the finances of the Society during the year. The office of Treasurer was arduous, and the work was often troublesome, yet the Treasurer often received but little thanks. Dr. Moullin had made the expenditure of the Society go as far as possible, and the satisfactory balance spoke much for the ability of the Treasurer.

Dr. ROUTH seconded the vote of thanks. He said he knew the anxiety and work involved in the post, due in part to the delay of members in paying their subscriptions. If a man had not much other work to do, it would be easy; but with as much to do as Dr. Mansell-Moullin had, he felt sure he must work often into the night. He thought that the Society might congratulate itself on having so good and hard-working a Treasurer. (Carried with acclamation.)

The result of the ballot for the election of officers was announced.

Honorary President.—R. Barnes, M.D., F.R.C.P.

President.—T. Savage, M.D., M.R.C.P., F.R.C.S., Birmingham.

Vice-Presidents.—Dr. Apostoli, Paris; A. H. Freeland Barbour, M.D., Edinburgh; Fancourt Barnes, M.D., London; F. C. Batchelor, M.D., Dunedin; Vincent Dickinson, M.D., London; W. H. Fenton, M.D., London; James Murphy, M.D., Sunderland; H. A. Reeves, F.R.C.S., London; Heywood Smith, M.D., London; J. W. Taylor, F.R.C.S., Birmingham; Professor W. J. Smyly, M.D., Dublin; W. Gill Wylie, M.D., New York.

Treasurer.—J. A. Mansell-Moullin, M.B., London.

Librarian.—George Granville Bantock, M.D., London.

Council.—C. H. Bennett, M.D., London ; Professor J. W. Byers, M.D., Belfast ; G. Cleghorn, M.D., New Zealand ; T. M. Dolan, M.D., Halifax ; C. Godson, M.D., London ; W. C. Grigg, M.D., London ; T. B. Grimsdale, M.B., Liverpool ; R. H. Hodgson, M.R.C.S., London ; F. Bowreman Jessett, F.R.C.S., London ; L. Jones, M.D., London ; J. Macpherson Lawrie, M.D., Weymouth ; E. Holland, M.D., London ; J. A. Shaw Mackenzie, M.B., London ; H. W. Maunsell, M.D., London ; H. Michie, M.B., Nottingham ; J. R. Morison, F.R.C.S., Newcastle ; Professor T. Oliver, M.D., Newcastle ; F. A. Purcell, M.D., London ; A. W. Mayo Robson, F.R.C.S., Leeds ; Professor A. R. Simpson, M.D., Edinburgh ; Professor Japp Sinclair, M.D., Manchester ; W. Travers, M.D., London ; A. Wallace, M.D., London ; S. Sunderland, M.D., London.

Editor of Journal.—Leith Napier, M.D., F.R.S.Ed.

Honorary Secretaries.—Leith Napier, M.D., London ; F. F. Schacht, M.D., London.

Dr. HEYWOOD SMITH proposed a vote of thanks to the retiring officers. It was a matter of congratulation that the names of the two Secretaries were not on the retiring list. The motion was seconded by Dr. Faussett, and carried unanimously.

General Business.

Dr. SCHACHT read for Dr. Benington the "Notes of a Case of Ruptured Tubal Gestation," operated on eighteen months previously for a similar condition.

NOTES ON A CASE OF TUBAL GESTATION, OPERATED ON TWICE SUCCESSFULLY IN EIGHTEEN MONTHS. By R. CREWDSON BENINGTON, M.D., Newcastle-on-Tyne, Vice-President of the Gynæcological Society.

Mrs. B., aged 28, married five years, one child four years ago; with the exception of the following she has had perfectly good health.

Before marriage and since, she has had a little leucorrhœa, at times, but at no time much or sufficient to call for advice. Except during her pregnancies she has always been regular, no dysmenorrhœa nor excessive loss, three weeks' interval. She had a very quick labour (two hours), had puerperal peritonitis after, and is said to have been very ill for a fortnight. *Two years after this, in 1890, when in America, she missed one period, then it came on accompanied with great pain. She was kept in bed ten days under the influence of morphia, and was said to be suffering from inflammation of the bowels.*

On May 7, 1892, I was called to see her at 8 p.m. She had been perfectly well up to 7.30 p.m. She had last menstruated on March 22. For the last two or three days she had had a slightly coloured discharge from the vagina.

I found her suffering from great abdominal pain and tenderness. The abdomen was resonant in front and in the loins. *Per vaginam*—an ill-defined swelling was felt in the left fornix, which was exquisitely tender. Cervix showed none of the characteristic signs of pregnancy. Nipples and areolæ were rather dark, had had no morning sickness. At 9 p.m. vomiting set in, and symptoms of collapse gradually followed. I had her taken to a private hospital as quickly as possible, and assisted by Mr. Morison I opened the abdomen at 11.30 p.m. By this time there were evident signs of a large quantity of fluid in the peritoneal cavity, and the collapse was so great that we feared she would die on the table.

On opening the abdomen a large quantity of blood escaped, the left tube and ovary were easily found and removed, the peritoneal cavity cleansed as carefully as her condition allowed, and she was quickly got to bed. The drain tube was removed on the fourth day. She made an uninterrupted recovery, and returned home from the hospital on the fifteenth day.

From this time to October 9, 1893, she continued in good health, on this day she sent for me. She had not menstruated for five weeks, and now had some ill-defined pain in the lower abdomen. Vaginal examination revealed nothing. During

the next three weeks she was never well, she had pain constantly, some days worse than others, and twice so badly as to necessitate several days in bed. She also had a slightly coloured discharge at intervals from the vagina. During this period there was palpable enlargement of the uterus, the cervix softened and the os became patulous. There was some milk in the breasts. I was extremely doubtful about her condition but inclined to the opinion that it was a normal pregnancy, with a tendency to miscarriage, and I attributed her pain to stretching of adhesions. Mr. Morison saw her with me and corroborated my opinion. She now complained of intense pain on defæcation, and I found a tender swelling behind the cervix which had not been there previously. It felt just like an enlarged tender ovary.

On November 8, she had a sudden and severe attack of pain, and I found the swelling behind the cervix very considerably enlarged. I again sought the assistance of Mr. Morison. There was so much tenderness that a thorough pelvic examination was impossible without an anæsthetic, and as the uterus could not be defined in front, the question arose as to whether the condition was not a retroverted pregnant uterus. We decided to give her an anæsthetic next day and to have everything ready for operation should it prove to be necessary. When under chloroform it was easy to define the enlarged uterus lying in front of the swelling in Douglas's pouch, which was not so tense and more doughy to the touch than when felt previously. I therefore opened the abdomen and found a little blood free in the peritoneum. Owing to adhesions there was a little difficulty in reaching the tube, but on getting it to the surface it was evident what it was. Tube and ovary were removed. She made an exceptionally good recovery—drainage tube removed in thirty hours—perfect union on eighth day; temperature during the first week never rose to 100°; downstairs in three weeks, and has been out for a walk since.

In reviewing this case there are several points of interest. I have called the specimens exhibited ruptured tubal gesta-

tions, not in consequence of microscopical investigations, but because of their clinical histories, and I think I am justified in having done so, but if the Society wishes for further corroboration, the specimens are at the disposal of a committee.

Assuming that they are ruptured tubal gestations, the first point of interest is, that the patient on whom I have twice operated for this condition possibly has had three tubal gestations, the history of her illness in America being suggestive of a similar event having occurred there, but in this instance it burst perhaps into the folds of the broad ligament, and in the two last cases into the peritoneal cavity.

The second point of interest is the difficulty in diagnosis in the last illness, that is during the early stages before rupture. A man learns from his own failures, and on looking back at the case I am sure I exaggerated the difficulties, and that they were more imaginative than real. I felt it hard to believe this patient had a second tubal gestation, and my scepticism was increased as the result of conversations I had with others on the subject, until the day before the operation. Had she been a new patient I do not think any difficulty in diagnosis would have presented itself to my mind.

With the experience of this case before me I am surprised that recurrences of this condition are not of more frequent occurrence than the literature indicates. If a tubal gestation arises from a diseased condition of the tubes, it is unlikely that this will be unilateral, and this being so, it is a matter for consideration whether it is not the duty of the surgeon to remove both tubes and ovaries at the first operation, and thus save the patient from a likelihood of requiring a second.

Dr. MANSELL-MOULLIN said he fully agreed with the conclusion arrived at by Dr. Benington, with regard to the removal of the appendages upon the opposite side. The case related by Dr. Benington was by no means unique; similar cases had been brought before the Society on previous occasions. He had himself been called upon to operate for ruptured tubal gestation at the West London Hospital some months previously, and had taken the precaution to remove

the ovary and tube on the opposite side, although they were to all appearances healthy. Nothing was known respecting the causation or pathology of tubal gestation, but the theory advanced by Mr. Tait appeared to him to offer a fairly satisfactory explanation, *i.e.*, the cilia covering the epithelial lining of the tube being destroyed by inflammation, the impregnated ovum exercised its natural tendency to adhere to the first suitable surface it met, and instead of being carried on by the cilia stuck fast in the tube. One thing was certain, the amount of mischief in the tube must be very small; if it were completely disorganised the ovum could not enter into it at all. Seeing, then, that salpingitis was so very frequently symmetrical, he quite agreed that there was great reason to remove the appendages on the opposite side, to secure the patient from the risk of a second similar accident; and that, too, if there was no obvious and apparent disease to be found in them. In his own case there was no doubt as to the nature of the rupture. The gestation sac, the size of a pigeon's egg, was found protruding from the torn tube.

Dr. ROUTH said he was not aware that the absence of cilia in the tubes had been demonstrated anatomically. If they were destroyed by inflammation, how was it that the spermatazoa were able to get so high up? And how was it that it did not affect both sides every time a woman conceived? Till these questions were answered, he did not see how they could accept the theory as correct.

Dr. TRAVERS said he had a patient walking about whose case might shed some light on this subject. Only twice during her married life had she been pregnant, and that at an interval of six years; on each occasion, in the course of a few months she became suddenly collapsed, with symptoms of ruptured tube, first on the right side and then on the left. On the last occasion he seriously considered the question of operation, and decided not to operate, because she had done so well the first time without operation. The result justified his decision, but he had serious anxiety about her on each occasion. She was now quite well.

Dr. SCHACHT said he would like to fall in with Dr. Benington's suggestion that the specimen be referred to a committee, for these tubes were very interesting, and ought to be examined for chorionic villi. He had a case the other day of this kind, but did not remove the second ovary, because he thought it should not be done, as long as they did not know the cause of the condition. He would suggest that the committee consist of Drs. Benington, Shaw-Mackenzie and Eden. These gentlemen were nominated as a committee by the President.

SPECIMENS.

FIBROID UTERUS REMOVED BY VAGINAL HYSTERECTOMY. By HEYWOOD SMITH, M.D.

Dr. HEYWOOD SMITH showed a specimen of a uterus, the subject of fibroids, removed by vaginal hysterectomy. The patient, aged 38 $\frac{9}{12}$, had been married for three and-a-half years, with no children, and had been a widow for eleven years. She was admitted to Warrington Lodge on November 26, 1892, suffering from pain and hæmorrhage. A polypus, two inches long and flattened, was cut away from the cervix on the same day. On December 1, a hard nodular outgrowth was found to exist on the left anterior aspect of the uterus, and she had left inguinal pain. She left Warrington Lodge on January 7, 1893, and was re-admitted December 7. On the 16th he operated. The right broad ligament was tied in three pieces, a separate ligature being placed on the uterine artery; two ligatures were placed on the left broad ligament. Operation was made more difficult by the fact that she was a nullipara. He was fortunate enough to be able to remove the appendages of both sides with the uterus. He closed the lips of the vaginal wound with three catgut sutures, and introduced a glass drainage tube. The patient made a good recovery, and was now walking about. The chief symptom for which he operated was pain, which quite unfitted her from earning her living. He believed this was the first case in

England of vaginal hysterectomy for fibroids. Doyen, of Rheims, had recorded fifty-three vaginal hysterectomies for fibroids, with four deaths (*vide British Medical Journal*, Epitome, December 23, 1893), and Dr. Montgomery, in the *American Journal of Obstetrics* for November, 1893, advised this as the usual treatment for small fibroids.

DISCUSSION ON SPECIMEN.

Dr. LEITH NAPIER asked whether there had been much hæmorrhage in this case, and whether Dr. Heywood Smith thought that vaginal hysterectomy was a less serious operation than oöphorectomy for this condition? It seemed to him that this was just the kind of case in which the patient would be benefited by removal of the ovaries.

The PRESIDENT, before discussing the question, showed A SPECIMEN OF A UTERUS STUDDERED ALL OVER WITH MYOMATA, removed by vaginal hysterectomy, and said that the discussion could proceed at the same time on both specimens. There had been great pain in his case; the os was thickened and the cervix hard. It was a question whether it was a simple fibro-myoma, or whether there was commencing malignant disease. The left ovary and tube were very unhealthy, and the omentum was adherent to the ovary, increasing the difficulty of removal. The patient was doing quite well.

With regard to Dr. Heywood Smith's specimen, he had seen the case with him, and, like him, had advised delay in operating, but the patient suffered so much that she strongly urged operation. The pain was probably due largely to stretching of the broad ligament, and if so, oöphorectomy would not have given so good a result. He thought that under existing conditions Dr. Heywood Smith had done the best thing.

Dr. BANTOCK presumed that Dr. Heywood Smith did not advocate the operation as a general rule. He agreed with Dr. Leith Napier that oöphorectomy carried less risk with it, and that the patient should not, as a rule, be subjected to the danger of the graver operation.

Dr. HEYWOOD SMITH, in reply, said there had not been much hæmorrhage. It was a fair question to ask why he did this operation. He judged by careful examination that the tumour was in the uterine tissue itself, and so thought oöphorectomy would not relieve the pain. The same conclusion was drawn from the considerations mentioned by the President. He would by no means advocate vaginal hysterectomy as a usual or frequent procedure for fibroids; each case must be treated on its merits, and moreover, a large fibroid would not pass through the vaginal outlet.

VALEDICTORY ADDRESS.

By FREDERIC BOWREMAN JESSETT, F.R.C.S., President.

GENTLEMEN,—In delivering my farewell address before vacating the presidential chair of this Society, allow me in the first place to congratulate the Fellows upon their choice of my successor in office, a man who will do honour to the position, and add lustre to the Society in every respect. It is with a great source of gratification that I find the two gentlemen now sitting on either side of me are retaining office as Hon. Secretaries to this Society for another year; and I take this opportunity of thanking them for the able manner in which they have aided and supported me during my year of office. To these gentlemen the Society owes much of the success which has been so pronounced at the meetings we have been privileged to hold; and I think Dr. Savage, your newly-elected President, may be congratulated on having the advantage of the experience and ability of two such lieutenants as Drs. Leith Napier and Schacht.

In my inaugural address I reminded the Fellows that the success and welfare of a large Society like ours does not rest with the President. That a President can do much there is no doubt, but it is on the support of the Fellows, in attending the meetings and taking part in the discussions, that the prosperity of the Society must mainly depend. It is my pleasing duty to tell you that during the year that has passed there have

been nearly twice as many attendances as there were in the previous year, and the value of the material which has been placed before you can be estimated by the amount of discussion which has taken place upon the papers, which has necessitated the holding of two extra meetings.

In considering the form this address should take, I have come to the conclusion that I could not do better than give a short review of the work done by the Society during the past year.

Of the subjects I ventured to suggest as being of practical importance and worthy of discussion, I notice, in the first place, a most able, thoughtful and practical paper "*On Hæmorrhage from the Uterus*," by Dr. Savage, in which he discussed fully, firstly, the causes of hæmorrhage directly associated with the uterus itself, in complete abortion, cancer as a cause of bleeding, myoma, flexions; and secondly, the causes of hæmorrhage not directly associated with the uterus, *e.g.*, tumours, ectopic gestation, chronic inflammatory diseases of the appendages, and obesity, &c. A most interesting discussion followed, in which Dr. Leith Napier, Dr. Routh, the late Dr. Edis, Dr. Macnaughton Jones, and Dr. Bantock took part. At the June meeting a contribution on "*Intra-Peritoneal Myomotomy*" formed the subject of a very valuable paper by Dr. Japp Sinclair, in which he strongly advocated this method of operating, and he tells us that his experiences of the use of the *serre-nœud* leads him thoroughly to sympathise with the aversion expressed by some surgeons to this method of operating. He further says that he has tried the various modifications proposed from time to time by gynecologists both at home and abroad, but they are all unsatisfactory. He narrates thirteen cases in support of his views.

Dr. Heywood Smith, in supporting the intra-peritoneal, or as he prefers to call it, the sub-peritoneal method, of treating the pedicle, narrated some cases in which he had successfully operated. Dr. Heywood Smith predicted that the method of operating with the clamp would soon be forsaken altogether in favour of the more scientific procedure.

Dr. Bantock at an adjourned meeting defended the use of the clamp, and made a vigorous criticism upon the method advocated by Dr. Japp Sinclair and Dr. Heywood Smith, maintained that he saw no reason to deviate from the use of the *serre-nœud*, which had given him good results. In support of his view I may refer to a series of cases related by Dr. Bantock at the March meeting. Dr. Bantock showed three specimens of myomatous uteri, all of which presented special points of interest. In connection with these cases he read the notes of the cases, and explained minutely the different necessary steps in the removal of each of these tumours; this proved highly interesting and instructive, as the treatment of the stump in each case differed materially from the others. Dr. Cullingworth, Mr. Reeves, Mr. Butler Smythe, Dr. Boxall, and Dr. Leith Napier took part in the discussion.

In support of the intra-peritoneal method I mentioned two cases in which I had operated, and expressed disappointment that no reference had been made to the American method of dealing with the stump, or to the combined abdominal and vaginal method adopted by Martin of Berlin. I suggested that instead of lacing the peritoneum in the floor of the wound that the peritoneal flaps should be drawn down through the vagina in the same manner as in vaginal hysterectomy. At a subsequent meeting I showed a specimen of a myomatous uterus which I had successfully removed by this method.

In connection with this discussion I would draw attention to a paper read at our last meeting by Mr. John W. Taylor, in which he advocated a special method of performing hysterectomy by the clamp operation. His method consisted in including the parietal peritoneum around the stump in the clamp, so ensuring absolute apposition of the parietal and visceral peritoneum. Mr. Taylor claimed for this method that there was no risk of the peritoneum becoming infected by the discharge from the stump.

In support of his views Mr. Taylor related several cases in which he had adopted this procedure with marked success.

Dr. Bantock in criticising the paper, explained the

method adopted by himself in securing accurate apposition of the parietal and visceral peritoneum, and while complimenting Mr. Taylor upon the ingenuity of his innovation, feared that in practice it would be found, by including the parietal peritoneum in the clamp, that the risk of peritonitis would be rather increased than diminished.

In considering the practical bearing of the discussion arising upon this important subject, one is forced to admit at the end of the discussion that all the eloquence displayed by the partisans of the different methods had apparently not had the effect of adding one convert to either side; and perhaps it is better that such should be the case, as in an operation of such magnitude, and in which such serious consequences are at stake, surely it would be better for each surgeon to continue to practise that method in which he has attained dexterity. In the meanwhile, the younger rising surgeons, by watching the results of the different operators, will be able to form their own opinions as to the operation which is attended with the best results, and eventually adopt that method which they consider best, and which may have been proved easiest of performance, and safest to the patient. For myself, I believe that no hard-and-fast line can be drawn. In certain cases I have no doubt the method of clamping the stump outside the abdominal wall will be found to be best; in others, total extirpation of the uterus, turning the peritoneal flaps down through the vagina; and again, in others amputating through the cervix and lacing the peritoneal edges together over the stump. There are scarcely two cases alike, and we rarely know when commencing these operations what complications may have to be encountered.

At our May meeting Dr. Macnaughton Jones read an instructive paper on "*Uterine flexion, Distinct Lesions and Remote Symptoms due to Uterine Irritation.*" In support of the views expressed in the paper, which must be carefully read to be fully appreciated, Dr. Macnaughton Jones tabulates 270 cases of disease and abnormal conditions of the sexual organs in women, and adds another table enumerating

the symptoms due to uterine reflexes which these women suffered from. The value of this paper cannot be exaggerated, as so much discredit had been showered upon gynaecology as a "specialism out specialised." Dr. Bantock, Dr. Routh, Dr. Bedford Fenwick, Dr. Robert Barnes, Mr. Spanton, Dr. Leith Napier, Dr. Heywood Smith, Dr. Jamison, and I took part in the discussion, and related many cases which had come under notice, which strengthened the expressions of opinion and dicta laid down in the paper by its author.

At the June meeting, Dr. Leith Napier read an exhaustive paper upon "*The Operative Treatment of Vaginal, Uterine and Ovarian Displacements*," in which he discussed fully the advances which had been made in recent years in the surgical treatment of prolapse and displacements of the genital organs in women. In this paper the operative treatment of rectocele, cystocele, and uterine displacements were reviewed, and the different steps of the operations explained and illustrated by diagrams. But the chief interest of the paper lay in Dr. Leith Napier's experience of "*Operations involving direct corporeal uterine fixation*," in which operation he had had much experience and good success. He narrated one case which he had operated on in February, 1891; the patient had subsequently become pregnant, and was delivered naturally at term. A most interesting discussion followed, in which Dr. John Phillips, Dr. Heywood Smith, Dr. Lycett, Dr. Routh, Mr. Spanton, Dr. Schacht and Dr. Travers took part. The views of the speakers differed as to the advisability of performing the operation of ventral fixation.

At the October meeting, Mr. Christopher Martin brought before us a most original paper on "*The Nerve Theory of Menstruation*," in which he detailed the theory of menstruation and the numerous uterine reflexes in a most minute and able manner. This paper is one that requires to be carefully read to be thoroughly understood. A good discussion followed.

At the same meeting I exhibited three specimens of

carcinomatous uteri, which had been removed by caustics. The specimens were exhibited to illustrate a method of treatment of certain forms of carcinoma of the uterus, which were too far advanced to allow of the diseased organ being removed by the operation of vaginal hysterectomy. Dr. Purcell at the December meeting showed a similar specimen, which he had removed in the same manner by the use of chloride of zinc caustic. Dr. Routh mentioned some cases in which he had removed large portions of the uterus by the application of sea-tangle tents soaked in bromine, the vagina being protected in a similar manner with carbonate of soda.

At the November meeting I had the privilege of reading a paper before the Society, "*On twelve Cases of Vaginal Hysterectomy with one Death.*" I exhibited the specimens, and through the courtesy of Mr. Plimmer, pathologist at the Cancer Hospital, I was enabled to show microscopic specimens of the different cases. Since reading this paper, I have operated upon two other cases, both successfully. The specimens from these cases I had the pleasure of showing to the Fellows at the December meeting; one of these cases was made more difficult owing to the presence of a large cyst in the broad ligament.

In discussing this subject in my address delivered from this chair last February, it will be remembered I compared the operations of supra-vaginal amputation of the cervix for carcinoma of the os and cervix, with total extirpation of the organ for the same disease, and I expressed myself very strongly in favour of the lesser operation. I am still of the same opinion, if one is quite sure that the disease is limited to the os and cervix, but if there is any doubt in one's mind as to the limits of the disease, I am sure the surgeon will study the interest of his patient best by removing the entire organ. My chief argument in favour of the partial operation was this, that in my hands, and in others whose practice I had watched, the mortality after total extirpation had been very high; but by care in selecting cases and paying special attention to small details, as set forth in my paper, I am

induced to modify my opinion and believe the mortality after vaginal hysterectomy may be reduced considerably.

A most interesting and instructive discussion followed, in which Dr. Leith Napier, Dr. Purcell, Dr. Heywood Smith, Dr. Edis, Dr. Bantock and Mr. Reeves took part. At the same meeting Dr. Savage exhibited a "*uterus he had removed by vaginal hysterectomy for prolapse,*" and read a short paper in connection with the same. The case was one in which pessaries and all other surgical appliances had failed.

Dr. Fenton and Dr. Leith Napier advocated ventrofixation for similar cases, while Dr. Bantock thought a well-fitting pessary was all-sufficient for the majority of these cases.

A number of most interesting specimens have been shown at the different meetings, several of them of great practical interest and value, giving rise, in many instances, to animated and instructive discussion.

Gentlemen, this is a short epitome of the work which has been achieved by this Society during the last twelve months, and I think in quality it will compare favourably with that of any other society, and indeed of this Society in any former year. It will be noticed that the country Fellows have contributed considerably to our meetings, and I think the success of the Society is added to materially by these gentlemen, who often travel many miles, I am sure at great inconvenience, to give us the benefit of their work and experience.

It is not the custom at this Society for the President to allude to gaps caused by death during the year, but I am sure I shall be pardoned if I allude to the great loss the Society has sustained by the death of that distinguished man, Dr. Edis, a Fellow who attended most regularly at our meetings, and gave us the benefit of his ripe experience in our discussions. He always took a very lively interest in the welfare of the Society. He was President in 1888, and served the office of Treasurer on two occasions, besides being a member of Council for a considerable time. It is needless for me to

say more, as a full obituary notice of Dr. Edis will appear in the column of our Journal in due course.¹

It will not be out of place here to allude to a subject which has occupied the minds of the Council during the year, that is, the establishing of the custom of an annual dinner at the end of the session. I am sure from the ready response the Secretaries have received from a large number of Fellows to whom they have applied, that the idea is a popular one. And I am convinced that there is no more popular way of cementing good fellowship than by these annual gatherings. I trust we shall have a good attendance, and if there are any here who have not accepted the invitation, I hope they will do so at once, and let it be known that the Gynæcological Society exists, not only in name, but in fact.

It now, gentlemen, remains for me to thank you, not only for your patience in listening to me to-night, but for the support you have given me during my year of office, which will enable me always to look back to the time when I had the honour of presiding here as one of the most pleasant epochs in my life. Gentlemen, I wish you all and the Gynæcological Society a prosperous New Year.

Dr. ROUTH said he felt much honoured that he had been asked to move a vote of thanks to the President for the able way in which he had done his duties in the chair. Every Fellow must have been gratified, not only by the work which the President had himself done, but also by his unvarying courtesy to every member of their Society. It showed that Mr. Jessett's heart had been in his work, and that his one wish had been to please everybody. The pleasant feeling which existed in the Society was shown by the social re-unions which had taken place from time to time. They were also much indebted to him for his address of that evening. The clear, concise account of the year's work which it contained

¹ An obituary notice appeared in Part xxxv. of the Journal.—ED.
B. G. J.

ought not to be lost, so he hoped the President would allow it to be printed in their Journal.

Dr. SAVAGE said he felt it to be a special pleasure to second this vote of thanks. The characteristics which the President had shown during his tenure of office were ability, courtesy and hospitality; and he felt it would be very difficult to follow worthily in Mr. Jessett's footsteps. He endorsed every word of Dr. Routh's.

The PRESIDENT, in reply, said that his whole heart was in the Society; and though not an original Fellow, he had done all he could for it since he had been connected with it. His year of office had been one of great pleasure, and for this he had to thank the Fellows, for, by the interest they had shown in the meetings, they had secured a most successful year.

ORIGINAL COMMUNICATION.

Ought the Obstetric Physicians at General Hospitals to perform Abdominal Section?

AN excellent account of a successful series of ovariectomies was related by Dr. Spencer at the Medical Society of London, on Dec. 11, 1893. An account of the paper has been published in the *British Medical Journal*, No. 1720, p. 1315. Dr. Spencer's title, "A Plea for the Performance of Ovariectomy by Obstetric Physicians," was justified by the results shown. As might be expected, the discussion which followed was not quite harmonious. Each speaker more or less tinged his remarks with his own particular experience. This is usual and natural, and in most cases fraught with the best effects. But a persistent use of the first personal pronoun in capitals is not wholly suited for academic debate.

We doubt if any alteration of opinion was produced in any one individual by the arguments advanced. Those who went, believing that obstetric physicians at general hospitals should assume the major—if not the whole—responsibility of abdominal pelvic surgery, returned still holding to their belief, and glad to learn that another great teaching school possessed a teacher who could not only speak of ovariectomy and allied operations, but had submitted evidence to show that he could happily demonstrate and teach practically what he spoke of. On the other hand, some of the Fellows, notably the surgeons of the general hospitals, who spoke, were willing to admit that the reader of the paper had proved his case so far as it went. But one speaker very fairly asked if the obstetric physician is to perform operations for abdominal tumours which might prove to be renal or hepatic, &c.—would not the obstetrician

be trespassing on the preserved covers sacred to the knife of the hospital surgeons? Another surgeon, somewhat naively, stated that he preferred the obstetric physician who was content to make the diagnosis of an ovarian or uterine tumour, and leave its surgical removal to him. This argument will ever prove a mighty one until patients and practitioners become free from preferences and passions. The gist of the matter was put shortly by one operating obstetric physician, who stated that in his opinion all hospital obstetricians should be surgeons. Another gentleman of high position related how, thirty years ago, he had been in the custom of sending all his hospital cases of abdominal tumours requiring surgical treatment to a well known special hospital; but that now, with better knowledge and appliances, such operations were undertaken at the general hospital which he served, with excellent results.

Were it not for the unwise custom of one great institution, all obstetric physicians in London would probably be permitted and encouraged to undertake abdominal operations for ovarian and uterine tumours. Bartholomew's blocks the way! Twenty years ago, when abdominal surgery was in the hands of a few—a very few—operators, the custom might have been defended with many good arguments. But now that St. Thomas's, Guy's, the London, Middlesex, St. Mary's, St. George's, University College, and other institutions possess obstetric physicians, who are not only permitted to operate, but in at least some of the instances quoted, have proved right well their justification for doing so, it is too late to ask the question:—“Should obstetric physicians do abdominal surgery?”

As to the secondary question:—“Should obstetric physicians be restricted to ovarian and uterine surgery?” there is more room for argument. There are certain men serving as surgeons at general hospitals in London and elsewhere, whose capability as ovariologists is undoubted; but more, there are a few such surgeons who are pre-eminent as general abdominal surgeons, and who have justly gained foremost

places by their successful operations on the kidney and other non-pelvic tumours. Are such cases to be left in the hands of the surgeon, or are they also to be taken possession of by the hospital gynæcologist ?

Then, again, if the general hospital obstetrician is to be primarily a gynæcological surgeon, to whom are the public and the profession to apply for the highest obstetric skill and the wisest obstetric experience ? Is the teaching of midwifery to be relegated to the assistant accoucheur, who, hoping ere long to become full physician-accoucheur, will naturally strive to fit himself for his future operative work, and care little for the work which temporarily he must undertake ? Or is there not a time coming when obstetrics and gynæcology will be recognised as worthy of separate attention, when there will be one officer who will teach obstetric medicine, and another gynæcological surgery ? When, instead of appointing an assistant general surgeon to act temporarily as the hands, and an obstetric physician to act as the head, there will be a recognition of the fact that while every student must be taught midwifery, every student who wishes to be taught gynæcology must acquire his knowledge either from one of the few capable "all-round" men who can teach both (but in a special course), or, still better, at his own or some other hospital, from a distinct teacher, who possesses a thorough practical knowledge of the subject ? We have no desire to unduly magnify gynæcology, or to endeavour to interfere in any way with the provision made for the proper teaching of midwifery. Yet we think it as essential for a young practitioner to be able to diagnose all, and treat minor gynæcological affections, as it is for him to be acquainted with dermatology, ophthalmology, otology, rhinology, laryngology, or any other special branch. Of all so-called specialities, gynæcology is the most important for general practice. The humbug and the quackery of any science or art is born of ignorance and cradled in credulity. The more practical the training our students receive, the better for the future of humanity. On certain grounds some would advise that gynæcology should

be a post-graduate study. Experience shows that all men who wish to devote their lives to one particular branch of medicine must gain their knowledge in great measure after obtaining their degrees or diplomas. Herein lies the future work of special hospitals. Had it not been for the past work of our special gynæcological hospitals, we may safely assume that gynæcological knowledge would not have been so wide or so precise as it is to-day. Moreover, we much doubt if the question would ever have been raised—"Are all the ovarian and uterine tumours to be given over in general hospitals to the obstetric or gynæcological officer?"

Meantime, the personal equation of the individual officers will determine the question. "Worth makes the man, the want of it the fellow." Adaptability determines the operator, be he general surgeon or gynæcologist, or abdominal surgeon or obstetric physician. Without the surgical aptitude and training, there need be no vain longings for greater freedom of action; with the surgical bent and fitness, the question will sooner or later be determined, as we have indicated. The old saying, "*Virtus in actione consistet*," will ever apply. We must not rest contented until we see practice wedded to theory, and gynæcology adequately taught in every medical school, not as a theory or a narrow specialty, but as an important branch of the great tree of medical knowledge. The gynæcologist ought to have been—if he is not always—a competent obstetrician, which postulates that whether you call him physician or surgeon, he should know and bring to bear on every gynæcological case the widest acquaintance with general medicine and general surgery which it is possible for him to acquire. To gain such knowledge is not easy, but it must be the ideal of those who would practise and teach gynæcology.

CLINICAL CASES.

Notes of a Case where Ovariectomy was twice Performed.

BY HEYWOOD SMITH, M.A., M.D.

CASES where ovariectomy has been performed twice upon the same subject are sufficiently rare to merit attention, and the one about to be recorded has several features of interest, the repetition of several conditions that obtained at the first operation in the second, and the fact that pregnancy did not occur until after the first operation.

C. S., aged 28, married six years, without children, was admitted into the Hospital for Women, May 27, 1884. In July, 1883, she began to feel a gnawing pain in the right side of the abdomen low down, extending down the right leg nearly to the knee, but she did not notice any swelling until the middle of February; since that time the swelling gradually increased. Catamenia began at the age of 14, regular, duration four days, with pain on the first and second days.

On admission aspect not unhealthy, alæ pinched; abdomen slightly enlarged below the umbilicus. A tumour felt to extend to the level of the umbilicus on the right, not so high on the left; contents fluid; auscultation *nil*. Cervix to right of median line. In front of the cervix is a somewhat hard tense mass, apparently springing from the right anterior aspect of the uterus. Uterine sound passes upwards, forwards and slightly to the right three inches.

Operation June 26.—Bichloride of methylene and carbolic spray. Incision five to six inches, tumour tapped, contents very dark fluid; an adhesion to the omentum, posteriorly, was tied in two places, and a deep adhesion in the pelvis was

peeled off. The tumour was closely attached to the uterus on the right side by a broad and rather thick pedicle; this was ligatured in three sections with soft silk and the tumour cut away. The uterus was rather bulky; *the left ovary was healthy*. The wound was closed with nine deep silk-worm sutures and five superficial. The operation lasted fifty-five minutes.

Note.—Both the abdominal walls and the pelvic viscera, especially the tumour and its adjuncts, were very vascular. The question arises whether this condition has not some relation to the shortness of the pedicle; that whereas in cysts with a fairly long pedicle the vascularity is not great, tumours with close relation to the uterus may partake of the vascular character that is associated with uterine tumours.

On the next day, some serious symptoms supervening, three stitches at the lower end of the wound were removed, and on the finger being passed down into the pelvis, about two ounces of very dark blood escaped; a glass drainage tube was then introduced, and Douglas' pouch syringed out with a weak solution of sulphurous acid. On June 28 the temperature was 102° and the pulse 130. *June 29.*—Bleeding still from the drainage tube. *July 1.*—Stitches removed, rubber tube substituted for the glass one. *July 3.*—Tube taken out; wound gaped for a time, then granulated up. She was discharged August 30.

April 13, 1886.—The ligature (all three sections locked together) came away twenty-one and a-half months after the operation through a sinus in the abdominal wound, which had remained patent.

January 26, 1887.—Catamenia four days, very free, with clots and forcing pain. Uterus still rather bulky; left ovary prolapsed and tender. *December 1.*—Last catamenia October 4—8; signs of pregnancy. A male child born dead July 6, 1888.

September 3, 1891.—On the left of the uterus, and closely adherent to it (as the right ovary was before) is a swelling somewhat tense. *November 12.*—Tumour the size of an

orange, cystic. Admitted into Warrington Lodge, December 28, 1891.

Operation December 31.—Dr. Dudley Buxton administered gas and ether, and Mrs. Scharlieb, M.D., assisted. A slightly curved incision was made to the left of the old scar. On opening the peritoneal cavity the tumour was found deep on the left and somewhat adherent; oviduct swollen and congested, lying over its back surface. During the manipulations necessary for the breaking down of the adhesions, the cyst gave way and a quantity of very dark grumous fluid escaped. The pedicle was very thick (as in 1884); it was transixed and tied in three sections, and one ligature passed round the whole. The abdomen was thoroughly douched, then by another curved incision on the right of the scar that portion of the abdominal wall containing it was cut out. A glass drainage tube was inserted: ten silk-worm deep sutures (the third from the lower end "a loose stitch") and three superficial were inserted; the wound was dressed in the usual way. The operation lasted seventy-five minutes. The tube was removed on the fourth day.

January 6.—Stitches taken out; much pus from the tube hole; rubber tube inserted. *January 9.*—Mass felt in the pelvis, partly fixing the uterus on the right and posteriorly. *February 1.*—Much pus from the sinus. *February 11.*—Temperature 102.4°, pulse 140. *February 22.*—Sinus by probe two and a-half inches. *February 25.*—Mass behind uterus hard and immovable. Patient left the hospital March 9, 1892. The ligatures came away June 14, five and a-half months after the operation, the three sections all together; mass still on the right behind the uterus.

November 1, 1893.—Patient feels well. Uterus quite moveable; just behind the uterus, a little to the right and high up, is felt a slight thickening.

The points that I think worth noticing in this case are (1) the length of time that elapsed—eight and a-half years between the manifestation of the disease in the two ovaries; (2) the fact that pregnancy occurred when the remaining

ovary was prolapsed and tender; (3) the similarity of the condition of the pedicles in each case; (4) the persistence of a sinus on both occasions; and (5) the length of time that intervened—in the first instance twenty-one and a-half months, and in the second five and a-half months—after the operation before the ligatures came away.

REVIEWS.

TRAITÉ DE GYNÉCOLOGIE, Clinique et Opératoire. Par S. POZZI, Professeur Agrégé a la Faculté de Médecine ; chirurgien de l'hôpital Lourcine-Pascal. Avec 491 Figures dans le Texte. Paris : G. Masson, 120, Boulevard St. Germain. 1890.

TREATISE ON GYNÆCOLOGY, Medical and Surgical. By S. POZZI, M.D., Adjunct Professor at the Faculty of Medicine, &c. Translated from the French Edition, under the supervision of, and with additions by, Brooks H. Wells, M.D., Lecturer on Gynæcology at the New York Polyclinic, &c. Two Vols. New York : Wm. Wood & Co., 1892.

A TREATISE ON GYNÆCOLOGY, Clinical and Operative. By S. POZZI, M.D., Professor in the Faculty of Medicine (Paris), Surgeon to the Lourcine-Pascal Hospital. London : New Sydenham Society, 1892-3. Three Vols.

This is unquestionably the greatest work on Surgical Gynæcology which we have had from the pen of any individual gynæcologist. The author's wide acquaintance with English and German work, not merely a book knowledge, but a practical personal acquaintance with the methods and the views of his co-workers on the subject, is a very distinctive and admirable feature which pervades the whole work. Seldom, indeed, do we find an author having so intimate an acquaintance with all recent advances on his subject, possessed of so exceptionally large personal experience, so widely catholic a surgical faith, and such consideration for the views of others. The book is so far unique, in that it is clearly written from a fuller clinical experience than is accessible to many operators far senior in years, and yet with an enthusiasm

and evidence of careful literary research which we seldom find combined with such practical knowledge. In a word, it is the work of a man who is old in knowledge, but young in energy, and in assimilation of the best experiences of others, and imbued with the ambition of doing justice to all without magnifying his own personal views or methods.

We congratulate Professor Pozzi most heartily on the success which has attended the publication of his *magnum opus*.

It is no easy task to attempt to even briefly summarise or review so exhaustive a treatise in the scope of a limited article.

The French edition, published in one volume, is bulky and cumbersome; it is not the sort of book to sit in one's easy chair with, or lift up lightly at odd moments, either in the study or carriage.

The American edition, produced by Wood & Co., and edited and added to by Dr. Brooks H. Wells, is in two large volumes. The American edition has been carefully Americanized; several alterations in the illustrations have been made, those essentially French having been replaced by American cuts of specula, &c. The bibliographical notes are transferred to the end of each chapter, which is a distinct improvement, but the distinguishing difference is the addition of fifteen chromo-lithographic plates.

Let us hope that Pozzi, as well as the American Medical public, has been benefited by this publication.

The Sydenham Society's edition is in three volumes, convenient in size, and printed in good type. The illustrations are less distinctly printed than in the original; some have been omitted, *e.g.*, fig. 15 in the original, &c., but others have been added, making the total 507, or 16 more than in the French edition. Much praise is due to the Society for the comparatively short time which has elapsed from the publication of the first to that of the third volume. There are slight inaccuracies to be found in the translation, and at times the meaning is somewhat obscure, but this is easily

accounted for, when one realises that the translation was undertaken by several gentlemen working independently of each other. On the whole, the rendering is worthy of the work, which is saying not a little for its excellence. We advise our readers who prefer to read the work in English, to acquire the three volumes of the Sydenham Society, as being more like the original and also a more convenient form in which to possess the book than its American rival.

The three volumes each comprise about five hundred pages. Vol. I. begins with antiseptics in gynæcology, and ends with fibroids complicated by pregnancy. Vol. II. contains carcinoma; uterine and genital displacements; deformities of the cervix; menstruation; oöphoro-salpingitis, its pathology and treatment, &c. Vol. III. treats of new growths of the uterine appendages and ligaments (ovaries tubes, broad ligaments, round ligaments); tuberculosis of the generative organs; pelvic hæmatocele, intra- and extra-peritoneal; extra-uterine gestation; diseases of the vagina; disease of the vulva, including perinæorrhaphy, &c. Malformations of the genital organs, including hæmatometra, hæmatocolpos, pyometar, pyocolpos, hæmato-salpinx in complication with genital atresia, &c.

So ambitious a work, covering such a variety of still unsettled subjects, cannot be expected to harmonise in every detail with every individual gynæcologist's opinions.

In reply to a somewhat unnecessary and inexact claim made by Pozzi in the preface of the original edition, *vis.*, that all great gynæcological operations and observations, with the solitary exception of ovariectomy, are of French origin, we cannot do better than quote from the lines he himself has written: "Il n'y a pour quiconque pense ni Français ni Anglais disait Voltaire, celui qui nous instruit est notre compatriote." As a compatriot who instructs us we welcome Pozzi and his work. In his remarks on antiseptics he discusses with much lucidity the various advantages and disadvantages of sublimate, carbolic, creolin, and naphthol β solutions. He states: "We must regard it as an established fact that it is

almost impossible to obtain completely aseptic dressings . . . it is therefore advisable to use antiseptic gauze (iodoform) rather than aseptic gauze simply sterilised by heat." In addition he advises sterilised sublimate gauze (1-1000). He has tried salol and iodol, but found them far inferior to iodoform and sublimate. Carbolic gauze loses its antiseptic powers so quickly that it is one of the most untrustworthy preparations. Another paragraph is worthy of note: "I never use sponges, for balls of absorbent cotton wool take their place with advantage. They may be used dry when they should be enclosed in a layer of gauze, or impregnated with sublimate solution and strongly wrung out." Again, in writing on the method of performing ovariectomy: "For my part I have completely discontinued the use of sponges." In place of marine sponges, small "compress" sponges, made of fine gauze, which are prepared in sublimate and prior to use "heated in a stove up to 140° C." for an hour, are employed. This is unquestionably a step in the right direction, and personally we have to some extent followed the same practice. One objection to the use of the gauze sponges is that they cannot be relied on to remove a large quantity of fluid from the peritoneal cavity so rapidly as may be done by marine sponges. The method of preparing these compress sponges is as follows:—"A piece of gauze is folded in such a way as to form squares, composed of eight layers of gauze, and having sides 30 centimetres in length. These are tacked together all round. The compresses are then boiled, for two hours at the least, either in a solution of carbolic acid (1-20) or in sublimate solution (1 in 1000). Afterwards they are kept in a fresh solution of the same strength, which must be renewed every week. When they are to be used they are carefully washed in warm water that has been sterilised by filtration and boiling, and are wrung dry. They now form a very absorbent and convenient kind of sponge. During one operation the same compress sponge may, if absolutely necessary, be used several times, so long as it has been washed. Those alone which have been soiled by any septic

liquid are immediately cast aside. After every operation all of them are destroyed."

Valuable practical hints are given regarding the preparation of ligatures.

In the chapter on anæsthetics preference is given to chloroform. The preliminary administration of nitrous oxide gas, followed by ether, is not mentioned. Nor, in cases of post operation syncope, is it well to forget the wisdom of injecting strychnia, or the benefit to be derived from the inhalation of oxygen.

The chapter on metritis is very full, and embraces much recent pathological research by Wyder, Cornil, Fritsch, and others. In discussing treatment the author advises the free use of the curette and drainage. He is a believer in intra-uterine injections in preference to applications by intra-uterine probes or brushes. Here we must venture to differ from him, and that strongly. The uncertainty and risks of intra-uterine injections, unless the cervix is well dilated, are great. After curetting we are accustomed to wash out the uterus with an antiseptic solution, and thereafter apply iodine or carbolic acid, carried on a probe covered by cotton wool; but the injection without dilatation of any strong application is uncertain and unwise.

The operative treatment of fibro-myomata is described fully. Pozzi prefers and uses the elastic ligature, with a special clamp, figured, to treat the pedicle extra-peritoneally. The tables of results show the comparative mortality to be 25·8 for the extra-peritoneal, and 32·7 for the intra-peritoneal method. "But it must be recognised that each of these methods has its special inconveniences and dangers." These are discussed. The method of total extirpation of the uterus, as now practised with encouraging success in Germany, England and America, is not suggested. Operators are still unsettled as to the best operation for general adoption, and it must require considerable further time before the extra-peritoneal treatment of the pedicle can be relegated as a bye-gone method.

In discussing the operative treatment for malignant disease of the uterus, the author favours total extirpation *per vaginam*. There can be little doubt that from a purely theoretical standpoint total removal is better than partial removal. The valuable papers read before the British Gynaecological Society by Mr. Jessett deal fully with the most recent statistics. Still, we are inclined to think that the eventual mortality of cases operated upon for uterine cancer is vastly higher than a mere record of recovery from the immediate operation would indicate. Partial extirpation may be assumed to have not only a better immediate, but remote, prospect of recovery, for the operation is less severe, and probably the majority of cases, properly subjected to partial removal, are less seriously affected. What is really wanted is the after history of each individual case. Only in this way is it possible to appreciate the real results.

Special attention has been bestowed on the operative treatment of uterine retro-displacements and prolapses; free reference is made to Badouin's treatise on "Hystero-pexy," but the subject has been independently and thoroughly investigated. We are unable to accept the precise method recommended for suturing the uterus to the abdominal wall, for, we think, from our personal knowledge of the operation, that three or more interrupted sutures will give equally good, if not better, fixation and present fewer possible difficulties both during and after the operation. Pozzi rightly appreciates that ventro-fixation is not an operation to be undertaken without due forethought, but further, that it is not only a safe but an eminently conservative procedure. The alternative operation in the majority of cases requiring uterine fixation, is removal of the tubes and ovaries; which, while it may relieve the acute symptoms, has no direct effect on the uterine displacement, and is unquestionably attended with a higher mortality.

Oöphorectomy for neuroses is unhesitatingly and strongly condemned; this is in accord with the practice of the majority of operating gynaecologists. The subject of salpingitis and

tubo-ovarian inflammations is treated most satisfactorily. Non-cystic salpingitis includes acute catarrhal, acute purulent, and the chronic parenchymatous variety; cystic salpingitis comprehends hydro-salpinx, pyo-salpinx, and hæmato-salpinx. It is doubtful whether hæmato-salpinx is often clinically distinguished as cystic, and operators are accustomed to associate hæmato-salpinx, which is still under observation, with certain definite causes rarely originated in the same way as the more fluid tubal collections. Perimetritis, parametritis, and pelvis abscess are classed under the term perimetrosalpingitis. Recent observations in England, France, and America, have shown how much nearer the true pathology of these affections Bernutz and Goupil were, than gynæcologists were willing to accept ten years ago. We have come to this that pelvic cellulitis, or parametritis, is generally if not always, due to sepsis, pelvic peritonitis or perimetritis to some form of salpingitis. Further, while many, if not the majority, of cases of pelvic cellulitis get absolutely well without surgical intervention, the converse holds true of pelvic peritonitis due to salpingitis. Pozzi is not a believer in tinkering operations on the tubes; but he has adduced strong evidence in his recent address, delivered at the annual meeting of the British Medical Association, to show that small cystic ovarian conditions may be successfully treated by opening and destroying the cyst cavities by ignipuncture. So far, the cases thus treated have been limited in number; but the wisdom of saving even a small piece of healthy ovarian stroma is evident.

The pathology of ovarian cysts is more fully discussed than in most books written by a clinical surgeon. Several excellent illustrations, of which a large proportion is from English sources, elucidate the text. The pathology of dermoid cysts is fairly treated. "The incarceration theory, although it is open to criticism, is, taken as a whole, the most satisfactory explanation." The chapter on ovariectomy is elaborate in quotations and excellent in the main. The technic of the operation in ordinary and unusual conditions,

is manifestly written from wide personal acquaintance, so that it cannot fail to teach. Parotitis, it is said, "has been known to occur during convalescence, but is not at all common; it is always an indication of a certain degree of septicæmia, and the prognosis is not favourable." This observation is not quite acceptable. In Mr. Paget's paper, communicated to the Medical Society of London, 101 cases of parotitis were recorded following injury or disease of the abdomen and pelvis. Of 50 cases associated with injury or disease of the generative organs, 27 followed ovariectomy or oöphorectomy. Mr. Paget analysed the cases, and concluded that "there is rarely much disturbance of the general condition of the patient; in a large proportion of cases the gland suppurates; the affection has no regular course; although it complicates pyæmia and septicæmia, it is most frequently independent of these conditions." We have seen one case after an operation for the radical cure of ventral hernia, and two other cases in the practice of other operators after ovariectomy. None of these cases suppurated, and all recovered.

In the chapter on extra-uterine foetation, we find "as regards the diagnosis of the variety of ectopic gestation, it is impossible. We know that the tubo-abdominal, the tubal intra-ligamentous or sub-peritoneo-pelvic, and the ovarian and tubo-ovarian may all go on to term." This is not proved clinically, and is highly improbable. We strongly doubt the existence of ovarian gestation; no perfectly satisfactory case is recorded, and certainly no instance of full term pregnancy contained wholly within an ovarian distension sac has been published. Our author is much more satisfactory in his practical deductions regarding the treatment.

Primary cancer of the vagina is briefly but well described. "In cases where one cannot hope to remove all the disease, scraping, followed by the use of the actual cautery, is alone practicable." A saturated solution of chloride of zinc may sometimes prove of great service in such cases, but in certain instances the pain caused by this application is very great. Vaginal fistulæ receive considerable notice; the

various operations mentioned comprise some familiar methods, and some others very rarely practised in England.

The chapters on tumours of the vulva and malformations of the genital organs, well deserve careful study.

We feel that we have been unable to do more than indicate some of the characteristics of this valuable publication. We are informed that the author devoted practically two entire years to its production. It is well worthy of the time spent on it, and we venture to express the opinion that ten times two years may elapse before Pozzi's work is wholly displaced from its present pre-eminently distinguished place as the leading treatise on Surgical Gynæcology.

L. N.

II.

AN INTRODUCTION TO MIDWIFERY. A hand-book for Medical Students and Midwives. By ARCHIBALD DONALD, M.A., M.D., C.M.Edin., M.R.C.P.Lond., Surgeon to St. Mary's Hospital for Women and Children, Manchester, and the Manchester and Salford Lying-in Institution. London: Charles Griffin & Co., Ltd., 1894.

In his preface to this manual the author states that "the work is intended to serve as a hand-book for medical students beginning the practise of midwifery and for midwives. . . . They are permitted to take charge of cases of natural labour, but the moment a case deviates from the normal in any important detail, the services of a doctor must be obtained. The subject is treated in a manner that is by no means too elementary in a guide to attendance on labour for the student, and yet is quite within the grasp of any intelligent midwife.

The work amply fulfils the aim of the author, and may be briefly described as composed of clear, simple, good English; good illustrations; and a greater quantity of food for thought and reflection than most books of its class. The first part contains four chapters. The first is devoted to the duties of the midwife, and to a description of the skeleton, the thorax and abdomen; the second gives a clear account of the

pelvis, the third of the female organs of generation, the fourth of menstruation and ovulation. As early as the end of the last-named chapter the sound clinical judgment of the writer is manifest, as in discussing menstruation he says: "So long as a woman is otherwise in good health little attention need be paid to slight irregularities. Medical advice should be sought under the following conditions:—When the first appearance of the menstrual flow is long delayed; when there is (apart from pregnancy and nursing) a prolonged absence of menstruation after it has been established; when the periods are accompanied by great pain; when the discharge is very profuse, especially when it is more profuse or more frequent than it formerly was in the same individual. It is most important that any woman in whom a discharge of blood occurs, after the change of life, should consult a medical man without delay."

Chapter v. contains a very excellent and, withal, a very simply-related, description of generally-accepted views regarding the development of the embryo. We regret that space only allows a partial, not an exhaustive analysis, so that we must pass to some of the more notable features of the book.

Part iii., chapter xiv. The mechanism of normal labour is very good, and the same may be said of all parts of the book dealing with the mechanism of delivery. The measures recommended for affording assistance in difficult or complicated cases are unquestionably judicious and safe, and, indeed, may err to some degree in that the policy of doing little or nothing till the doctor's arrival, while it is distinctly better than doing too much, is often attended, as every one knows who has had to come much in contact with cautious students and midwives, by a very high infantile mortality.

Here and there throughout the book appears evidence of somewhat careless revision, if not inadequate description. Dr. Donald's view that morning sickness "generally comes on in the second month and continues until the fourth month, but may be delayed in its appearance, and may last throughout

pregnancy," is hardly in accord with the precision which marks most of his clinical observations, or with some recent work dealing with the reflex sickness of gestation.

More lengthy reference might have been made to the most important of all the signs of pregnancy, the foetal heart beat, which it would be well that every student, male or female, should be able to recognise. No mention is made of "Hegar's" sign, which is often very helpful in diagnosing early pregnancy, especially in nulliparæ.

At page 58, "vaginal syringing" is recommended, but, as later the author plainly expresses his preference for douching from a can with continuous current, it is evidently merely an oversight.

Dr. Donald's beliefs with regard to the causes of abortion are that syphilitic affections, and many acute diseases such as fevers, are of primary importance. This is a mistake; the syphilitised uterus produces abortion on account of its local disease; but syphilis, as a constitutional maternal disease, is far more likely to result in premature delivery than in early abortion, and such also is the tendency in paternal syphilis; in typhoid, and variola, in short, in the hæmorrhagic fevers, abortion is highly probable; not so in typhus. Still, this is more a question for pathologists than midwives; and the author could refer to many adherents to his views.

Further, in discussing the causes of tedious labour, the arrangement is faulty. Inertia is referred to (1) general debility of the patient (which is, however, admitted to be an uncommon cause); (2) long residence in tropical climates; then come (3) frequent and rapidly succeeding pregnancies; (4) over distension of the uterus by excessive liquor amnii or twins; (5) early and sudden escape of the waters; (6) tumours in the wall of the uterus; (7) a loaded rectum; and (8) a distended bladder. Now, surely the long residence in a tropical climate is hardly a commoner cause than general debility; and, indeed, neither, in our experience, seems to be worthy of special enumeration.

It would have been well had more special mention been

made of the great distinction between uterine inertia which is primary, and due, in great measure, to non-commencement of good pains from one cause or other, and the uterine inertia which is secondary, and arising from exhaustion of the uterine muscle. It is true that a paragraph is devoted to "obstructed labour," and some differences pointed out between that and true uterine inertia, but the striking importance of differentiating the varieties of uterine failure or incompetence makes it deserve more attention than it here receives.

The author wisely writes: "It is the custom of many ignorant midwives [would he not have been justified in going a little further?] to administer ergot when labour is lingering. This custom cannot be too strongly condemned."

We are not quite so thoroughly in agreement with him when he writes: "Opium is a drug which is often useful in cases of pure inertia of the uterus, but is only to be given on the advice of a medical man." We think it so useful that we would willingly allow any student or midwife to give the "twenty drops of laudanum," which the author very properly recommends, in any case in which there is no manifest progress being made, and in which the pelvis and child are of normal size. If the unfortunate doctor is to be turned out of bed to advise on so minor a point as the administration of twenty drops of laudanum, we feel heartily sorry for the general fitness of the midwife or student.

At page 170 we note a lack of clearness. In describing the condition known as suspended animation, there is but one state mentioned; "mild" cases are said to be shown by the bluish-red colour of the child's face, and the strong heart beat. In "bad" cases "the child's face is pale, its limbs are limp and flaccid, the pulsations of the heart are feeble, there is no attempt at respiration." Now these are two totally different conditions, not stages of one and the same. Nor can asphyxia be regarded as "mild" and syncope as "bad." Both may be bad; or both may be easily remedied, or as our author puts it "mild." In cases which are manifestly suffering from apnœa, we have known rapid relief from allowing a

few drops of blood to flow from the funis; this would be about the worst thing possible in the syncopic condition. "Flicking with a wet towel" is neither a scientific nor a humane recommendation. In some cases the application of whisky or brandy to the child's chest, and rubbing it briskly with the palm of the hand aids artificial respiration.

We are somewhat at a loss to understand why a midwifery primer contains illustrations such as fig. 45, "Prolapse of the unimpregnated uterus" (Winckel), or fig. 72, "Stages of production of complete inversion of the uterus" (Phillips); and were it not that gynæcology and obstetrics are twin sisters, so closely joined together that the one suffers from severance from the other, and that he or she who would practise either with satisfaction must know something of both, one would feel disposed to cavil at these and other not infrequent divergences from pure obstetrics in these pages.

On "antiseptics" the author is clear and judicious. His recommendations are based on common-sense, and ought unquestionably to be followed by all who attend labours.

One may doubt whether he writes all that he thinks, or believes, regarding the theory, or rather theories, of the causation of puerperal septicæmia. Our own feeling is that in such a book as this, whether it is or is not true that other causes may be at the root of certain cases, the one creed of septic manual transference should be proclaimed with full voice until every midwife and every student in these islands shall feel that in neglecting to take the fullest antiseptic precautions she or he is running risks to her or his own reputation, and, still more sacred, to the welfare of the patient, risks which may be attended by irreparable injury and life-long regret.

The illustrations are seventy-two in number, and are generally well selected. The volume is highly creditable to the author, and should prove of great value to midwifery students and junior practitioners. We further welcome it as an honest attempt to raise the educational standard of midwives, and hope and believe it will attain a wide popularity, which it certainly deserves.

L. N.

III.

ANTISEPTICS IN MIDWIFERY. By ROBERT BOXALL, M.D. Cantab, M.R.C.P.Lond., Assist. Obstet. Physician to, and Lecturer on Practical Midwifery at, the Middlesex Hospital; formerly Physician to the General Lying-in, and Samaritan Hospitals. London: H. K. Lewis, 1894, price 1s.

This is a capital little monograph which is made up of two lectures delivered at the Middlesex Hospital. The author has devoted much careful study to the subject of puerperal sepsis, and his contributions to the subject are of recognised value. He has sought for the cause, and he now shows the means of prevention, which the time-honoured adage tells us is better than cure. The lectures are clear, forcible, and terse. Even the busiest non-reading man will feel repaid by spending five minutes in assimilating the summary. Dr. Boxall is an enthusiast on the subject, but our sympathies go with him when he writes: "Antiseptics, provided they be properly used, will at once destroy septic and all other infectious matter." Not only our sympathies, but our most deliberate judgment joins with his concluding sentence: "He, therefore, who would shield his patients from danger, must not only use antiseptics, but must learn to use them with intelligence and care."

L. N.

IV.

CLINICAL GYNÆCOLOGY, a Handbook of Diseases Peculiar to Women. By THOMAS MORE MADDEN, M.D., F.R.C.S.E., Obstetric Physician and Gynæcologist, Mater Misericordiæ Hospital; formerly examiner, Conjoint Board. Royal College of Surgeons' and Apothecaries' Hall; Vice-President, British Gynæcological Society, &c., &c. Baillière, Tindall, and Cox, London, price 12s. 6d.

This handsome volume of 545 pages, with 259 illustrations, has been recently referred to by an American contemporary as "an entertaining book;" it is entertaining, being written in

some parts with a raciness peculiarly Hibernian ; but it is, in addition, valuable and interesting ; valuable as it is a reflex of the ripe experience of the author, and interesting as it deals with many subjects from a distinctly individual standpoint.

The chapters each consist of single lectures, but it is evident that, while retaining much of the direct method of teaching aimed at in lecturing, considerable trouble has been taken to fit the instruction conveyed for more permanent usefulness. The first two lectures are devoted to introductory observations, and a description of methods for ordinary examination and diagnosis. The third lecture is on injuries of the perinæum. In the following lectures, of the first part, we have diseases of the vulva, vulvitis, and pruritus of pudendum ; diseases of the clitoris and urethra ; cystitis, cystocele, and vesical calculi ; diseases of the vagina, atresia of the vagina, and vaginal fistulæ.

The second part comprises lacerations of cervix uteri, chronic hyperæmia of cervix uteri ; endometritis, and subinvolution of uterus ; uterine fibro-myomata ; and malignant disease of the uterus.

The third part treats of uterine displacements. The fourth part of diseases of the Fallopian tubes ; displacements and inflammation of the ovaries ; ovarian tumours and cystoma, ovariectomy. The fifth part is devoted to menstruation and its disorders. The sixth to constitutional disorders connected with menstruation. The seventh to pelvic inflammation and hæmatocele, and the eighth to diseases and abnormalities of pregnancy.

It will be recognised, therefore, that the subjects dealt with comprise most that is important in gynæcology. The arrangement is somewhat unusual, but that is possibly influenced by certain teaching considerations.

The author has written : "A lecturer on gynæcology can claim no privilege to propound *ex cathedra* doctrines, but must remain conscious that should his views, whatever they may be, find their way into print, they are certain, if deemed worthy of notice, in any event to be freely criticised. We do deem

these views worthy of notice, and that mainly because they are mostly derived from the author's clinical experience.

Considerable attention is devoted to minor, as distinguished from major, operations, and in this it is evident wherein lies the author's predilections. Atresia of the vagina is discussed at considerable length, and the doctrines of Marion Sims, MacNaughton Jones, Bousquet, and others, who held that with a closed vagina there is usually no uterus, properly controverted.

For recto-vaginal fistulæ a denudation of the edges and suturing, as in vesico-vaginal tears, is advocated. If the fistula is comparatively low and large, it will be found better to divide the perinæum, and repair, as in total perineal rupture, with separate rectal sutures.

As to repair of lacerated cervixes, Dr. Madden "from clinical experience," is "entirely in accord with the teachings of Dr. Emmet." Possibly he is the only existing practitioner who, at the present day, accepts the exaggerated importance, which Emmet himself departed from, and with which these lesions were regarded some years ago. No distinction is made between the effect of lacerations which are limited to a part of the cervix, and those which go right through it to the vagina. If Dr. Madden had made himself fully acquainted with more recent operations on lacerated cervixes, he would have been less dogmatic. Schröder's flap method of repairing the lips is, if rather more difficult in execution, a distinct improvement. And, indeed, Emmet's operation, as now done, is so modified that we owe little but the principle to his teaching. And this might also be said about other minor matters. It is, however, when the author comes to discuss the treatment of fibromyomatous tumours that we find his teaching very strongly in contrast with current opinion, and,—may we say it with all respect—to some degree influenced by unwarranted prejudice. For example: "Oöphorectomy seems to me the only one (operation) that in such cases (*i.e.*, cases in which there is much hæmorrhage, suffering, and rapidly-growing tumour), may possibly be, in any way, frequently required, or justifiable

under ordinary circumstances." "The special risks and consequences of hysterectomy unquestionably suffice to exclude it from consideration as an operation of election." "With regard to myomotomy, it appears a means by which a patient may effectually be removed from a tumour, rather than an operation by which a tumour can be safely removed from a patient." Then follows a series of rather old, and since, to some degree, retracted, opinions against hysterectomy. So little does our author esteem the operation that he does not consider it worthy of description until some pages later (p. 227), when he discusses briefly, and not very clearly, Freund's abdominal hysterectomy for malignant disease. If our respected ex-Vice-President had been reading his *Journal* lately he would have noticed a paper on myomotomy, by Japp Sinclair, followed by an interesting discussion, in which evidence was adduced to show that the tumours might be removed and the patients left. And had he followed a little more attentively the teachings of Bantock, Tait, or Meredith, he would have recognised that hysterectomy is gradually becoming so perfected that the mortality now stands at a very different figure to that of ten, or even five, years ago.

Ere we proceed to notice his further views on major operations, let us glance at some curious inconsistencies in respect to the effect of electricity as a gynæcological curative measure. In endometritis "electricity is valueless" (p. 170). In the treatment of uterine fibroids, he believes that hæmorrhage may be arrested, but judging from his own experience, doubts the cure of the disease, as claimed by Keith, Apostoli, and Cutter. He also quotes from Dr. Savage's paper. "The use of electrolysis for the complete disappearance of myoma appears more like a dream of the past, and I take it, is settling down into oblivion. Were it otherwise, we should hear on all sides of the large tumours which have disappeared, and of the remaining cures which have been obtained." Yet Madden is evidently so far willing to believe that electricity "is likely to prove useful in many cases" (of cancer), and wholly ready to accept the claim by Apostoli and his fol-

lowers, that tubal diseases (chronic salpingo-oöphoritis) and other pelvic inflammations can be successfully treated by the faradic current! Some time ago this claim was answered in no uncertain terms by Dr. John Williams, from the presidential chair of the Obstetrical Society (vol. xxx., p. 285). Dr. Milne "Edwards," of Edinburgh, is quoted (evidently Dr. Milne Murray is meant), to the effect that faradism may be of service when there is definite organic changes in the ovaries.

Another contradiction may be glanced at when differentiating between sub-peritoneal uterine fibro-crysts and ovarian and parovarian tumours; "light is thrown on the diagnosis if necessary, by aspiration and microscopic examination of the contents of the cyst" (p. 179); but at p. 380, Spencer Wells, Lawson Tait, and Bland Sutton, are cited to show that the microscopic examination of the fluid found in ovarian cysts is of little aid in determining a diagnosis.

Returning to his views on operations, we have a fairly exhaustive discussion of vaginal operations on the uterus and vaginal hysterectomy. He does not regard even the vaginal method of total extirpation as expedient or justifiable, as a general rule, in cases of uterine cancer.

When referring to the treatment of malignant uteri, we find not only Porro's operation, but the obstetric operation of Cæsarean section, or as our author names it, "Cameron's" operation, described, and contrasted with the Porro Müller. Allusion is made to Säger of Leipsic, but singularly enough, no mention is made of Leopold of Dresden, who stands pre-eminently first with the largest and best experience. We proudly acknowledge the honour Cameron has done to British obstetrics, but fairness hardly justifies our ignoring the fact that Leopold's claims as the Cæsar of section are as yet undoubted. At page 192 we have "More Madden's short obstetric forceps" introduced (illustrated), as a means of delivering uterine fibroids; at page 185, "More Madden's compressing and axis traction forceps" are depicted, and on the preceding page the narration of a midwifery case, complicated by a submucous fibro-cystic tumour, in which these

forceps seem to have been ineffectually employed, is the only justification for the illustration.

As we were prepared to believe, Dr. Madden is not much enamoured of the removal of the uterine adnexa in Fallopian tube disease when this can possibly be avoided; he very rightly objects to their removal for neurosal conditions. He sanctions vaginal oöphorectomy for ovarian prolapse; he enumerates various means of treating chronic salpingitis, pyo- and hydro-salpinx by removal of the tube contents, whether purulent or serous, "as recommended by Dr. Routh and himself on several occasions," by catheterization of the tubes, free incision *per vaginam* and subsequent washing out of the empty tubes, and curetting the endometrium round the uterine ostium of the tube. He discusses Emmet's operation, electricity as used by Apostoli, abdominal section, with the view of aspirating distended ducts, or of breaking down adhesions and salpingostomy or resection of the tube, and lastly, Brandt's method of treatment by massage.

He does not believe in salpingostomy or massage, and here we are with him; he regards them as "fond fancies of transcendental scientists or enthusiastic faddists." But he actually thinks that he can cure pyo-salpinx by aspiration; and, as we have already noticed, regards the electrical treatment of tubal disease with approbation. He thinks well of curetting the endometrium when there are cystic accumulations, and this even in cases of chronic salpingitis, to which suggestion we must give our unqualified disapprobation, as in event of pyosalpinx existing, which, so far as we know, cannot generally be distinguished from serous collections, the risk of intra-peritoneal escape of pus must be very considerable. We agree in his doubts as to the general feasibility of catheterization of the Fallopian tube, and with his protest against vaginal extirpation of the uterus, together with its appendages, for diseases solely of the adnexa. But we can only understand his views on the operative treatment for the radical cure of some, otherwise incurable, cases of retro-uterine displacements, by the evident distaste he shows, in more than

one instance, to be influenced by the work of other gynæcologists, presumably as sober-minded as himself.

But let it not be thought that there is not quite as much, if not far more, to praise and commend as there is to question; which our above freely expressed criticism on certain points of practice, might seem to suggest. The book is one which will prove most helpful to the general practitioner. The drug treatment, all through the volume, is an admirable feature. There is too little of this side of gynæcological measures in most of our recent works; and we feel that we have gained not only valuable corroboration of our own views, but many fresh ideas from our perusal of the volume. To appreciate this fully the book must be carefully read.

Another highly commendable characteristic is the fearless expression of the author's views, and as a rule the excellent reasoning which accompanies most of the points on which he holds his opinion, as founded on large experience, to be correct. As an example, in discussing the mechanical theory of dysmenorrhœa, he criticises with every freedom the views of the Harveian lecturer on "Painful Menstruation"; thus, "the author (*i.e.*, of these lectures) is entirely sceptical of the influence heretofore generally—and as I hold rightly—ascribed to mechanical obstruction from flexions or from stenosis in the common causation of dysmenorrhœa. "It seems to me," says he, "that had the facts as regards flexions, stenosis and the uterine circulation been ascertained before propounding a theory, the mechanical theory of dysmenorrhœa could never have been propounded. It is also true," he remarks, "that what is true is generally simple. But the converse, what is simple is generally true, by no means holds; and the mechanical theory seems to be an instance of such logic." "In the lectures from which these conclusions are briefly cited, we have, I think, some evidence that Dr. Champneys' own logic is not altogether free from the fallacies which he attributes to the supporters of the mechanical theory of 'Painful Menstruation,' which he rejects."

Madden then refers to many hundreds of cases he has treated. "In the great majority of such the operative treatment of the stenosis, or the rectification of the flexion, was followed by the complete, and, as far as I could ascertain, permanent cure of the dysmenorrhœa. Therefore, unless Dr. Champneys, or someone else, can offer a more logical explanation of these facts than that to which my, possibly illogical, mind leads me—namely, that in those cases the cause of the patients' monthly suffering was obstructive dysmenorrhœa, and that its cure was effected by the mechanical or operative measures employed—I must continue to adhere to my own opinions and practice." The recommendation of castoreum as a remedy for dysmenorrhœa (page 430) is mentioned as "founded on the doctrine of signatures," *i.e.*, "because castoreum is derived from genital organs, so it was regarded as rational (?) treatment for diseases of the female organs of generation." "Such, gentlemen, was the remote origin of one of the remedies which in these closing years of the nineteenth century has been again seriously recommended *ex cathedra* for the relief of some forms of dysmenorrhœal pain, and my opinion of the value of which I shall leave you to infer from the foregoing observation."

We have already devoted so much space that we regret we cannot further dwell on the practical character of the book; free from any imperfection it cannot be said to be; incapable of improvement it is not; but taken as a whole it is most readable, most instructive, and certain to find its way into many men's collections as a book written, not for the purposes which influence the writing of many works, but written, because the author had a message to give to his brethren, and this he has delivered in no hesitating way

The illustrations are well executed; a very considerable proportion are those of instruments, &c., invented by Dr. Madden's former colleague, Dr. Duke.

L. N.

V.

THE YEAR BOOK OF TREATMENT FOR 1894. London, Cassell & Co., price 5s.

When, in 1885, this publication first appeared, it was announced that the object of the book was to present to the practitioner, not only a complete account of all the more important advances made in the treatment of disease, but to furnish also a review of the same by competent authorities. The object aimed at has been well maintained in ten successive volumes; and the volume for 1894, although it has increased considerably in bulk (pp. 469 compared with 307, in the 1885 issue), bears evidence of ever-increasing usefulness and mental activity.

The book is replete with points of importance to all practitioners.

Concerning the sections we are more immediately interested in, viz.: Diseases of Women, by Dr. Herman, and Midwifery, by Dr. Handfield Jones, both are worthy of the names associated with them. In Herman's digest of the operative treatment of inflammatory diseases of the uterine appendages, the full abstract of Cullingworth's valuable and epoch-marking paper is excellent. And the generous, if somewhat tardy, acknowledgment of Lawson Tait's pioneer work on these conditions is deserving of note. In the midwifery section there is nothing very novel, but all is sound and judiciously chosen. Among the more important papers quoted from, one by Herman on post-partum hæmorrhage, and one by Cullingworth on axis traction forceps, are of distinct practical value.

A new article on medical diseases of children, by Dr. Dawson Williams, will be much appreciated.

Every general practitioner who wishes to be *au courant* with the constant developments of medical practice is bound to possess himself of this exceedingly good and equally cheap annual record.

L. N.

VI.

A HANDBOOK OF OBSTETRICAL AND GYNÆCOLOGICAL NURSING. By Dr. MORE MADDEN.

This little volume of 200 pages is an enlarged edition of the late Dr. Churchill's Manual for midwives, with which Dr. Madden has incorporated chapters on gynæcological nursing. We are told that the original manual has been much altered, as "it was found necessary to re-write, expand, or alter almost every page."

While the work is not likely to supersede some of the recent nursing manuals, there will no doubt be room for it side by side with them. On the whole, it is written in a plain, simple style; and the different subjects treated of are well balanced. Some of the chapters may be mentioned with special approval, such as chapter vii., on "The Signs of Pregnancy"; chapter viii., on "The Management of Pregnancy"; chapter xi., on "The Management of Natural Labour"; and chapter xxxviii., on "The Hygiene of Infancy." Dr. Madden very properly calls attention to the danger of too early separation of the infant after delivery, when breathing is not going on properly; and his warning against rubbing and irritation of distended or painful breasts (p. 85) we heartily endorse. He has also some sound directions (on pp. 96, 97) as to the midwife's duties in cases of inertia of the uterus.

We have to point out, however, several blemishes in the book.

(1) *Omissions*.—In a book intended, not only for nurses, but for "sage-femmes" and for "students and junior practitioners," an account of the mechanism of labour ought certainly, in our opinion, to find a place. The examination of the placenta after its expulsion is not mentioned; in view of the possibility of portions of it, or of the membranes being left behind, and of the occasional occurrence of succenturiate placenta, we look on this as most important. Further, no distinction is made between face presentations, and un-reduced occipito-posterior positions; there is an illustration of

each (figs. 27 and 27a), but the writer refers to both as "face presentations" (p. 105).

(2) *Errors*.—On page 10, the author states that the chief pressure on the sacrum is "from within"; "from above" would be more accurate. The depth of the symphysis pubis in the male is stated to be "nearly double" that of the female (p. 16). The usual distance between the furthest points of the iliac crests is given as 13 to 16 inches (p. 18). The average length of the vagina is said to be 6 inches (p. 24) instead of $2\frac{1}{4}$ inches for the anterior and 3 inches for the posterior wall; whilst the direction of the vagina is given as "describing nearly the line of the canal of the pelvis." On p. 108, the swelling of one cheek in face presentations is said to be due to the "pressure of the os uteri"; it is rather due to the absence of pressure at this point. On p. 144, 5 grs. of corrosive sublimate in 2 pints of water is stated to give a strength of 1 in 3,000 instead of 1 in 4,000. Finally we are told on page 196 that death has "repeatedly" resulted from intra-uterine injection of sublimate solution; "sometimes" would convey a more accurate impression.

(3) *Faulty Expressions*.—There are several badly-expressed sentences: *e.g.*, "The fourchette is the inner edge of the posterior commissure of the vulva, and the anterior border of the perineum, *between which* is a space," &c. (p. 23). "The os uteri . . . is often the seat of extensive lacerations during parturition" (p. 29); the cervix, not the os, is the seat of laceration. "Severe after-pains may run on into actual inflammation" (p. 76). "Patients may rise the mercury in the thermometer by rubbing the bulb" (p. 165). Further, such expressions as the following are inelegant or inaccurate: "Externally, the tubes are of *equal* thickness" (instead of "uniform") (p. 32); "frequent passing water" (p. 41); "or it (the discharge) may come on more *flush*" (p. 76). "Each attempt at suckling makes the nipples worse, and *occasions* them to bleed" (p. 145).

(4) *Careless Proof-reading*.—Mistakes of this kind are more

frequent in some parts than in others: "sepsis" for "sepsis" occurs three times, and "aseptic" twice; in about half-a-dozen places a subject in the singular is followed by a predicate in the plural, or *vice versa*; whilst we meet with "Rotundo," "spirted" for "spirited," "bitting" for "biting," "nitrate of amyl," "inzimical," "ciccatricial," "anti-infection" for "auto-infection," "putresent," "tampoön" for "tampon," "autiflexion," "uteriæ," "hyo-salpinx," &c.

(5) Lastly, there are several questionable recommendations. On page 19 directions are given for estimating the size of the pelvis by vaginal examination; the impression left is that it is an easy matter to "pass the finger direct to the promontory of the sacrum," and carry it thence to the symphysis pubis, "and finally follow the course of the brim." On p. 77 the nurse is told that "the binder should be kept tight as long as the discharge is excessive"; it has been shown that the binder has no effect in contolling hæmorrhage; and for this reason also, we cannot endorse the recommendation that relaxation of the uterus can be prevented by placing a rolled-up napkin above the uterus, and "as many more as may be necessary, in squares, over the uterus" (p. 62). The extraction of the after-coming head by means of traction with the finger in the child's mouth (p. 111) could well be discontinued in favour of the more excellent way by means of leverage applied to the neck. We think further that it is a dangerous doctrine to teach intra-uterine irrigation after delivery as a "primary duty" of the nurse, in ordinary cases, or even "when there is reason for apprehending the possible occurrence of puerperal septicæmia;" it is rather an operation to be left to the physician; or to be used as a *dernier ressort* in cases of emergency by an experienced nurse. It is difficult to reconcile the writer's directions on the subject of intra-uterine douches after delivery on p. 143, with this sentence on p. 142: "The usefulness of vaginal injections before delivery is theoretically not shown, practically not proved; moreover, such injections may be the means of doing harm, and, therefore, as Dr. Herman concludes, midwives ought not to be taught to give them." For our part,

we should consider vaginal injections before delivery to be more generally useful and much less risky, than intra-uterine injections after delivery.

The general get-up and the illustrations are good; we doubt, however, the usefulness of fig. 11, representing the vagina as a widely-gaping tube, even though its incorrectness is pointed out.

Some of the above criticisms are on matters of opinion; and no doubt Dr. More Madden has good reasons for his own views; but in other respects the book might certainly be improved and rendered more accurate in a subsequent edition. By the way, how many midwives or students would recognise "liquor ammoniæ acetatis" under its old name of "mindererus spirit"?

A. E. G.

*SUMMARY OF GYNÆCOLOGY, INCLUDING
OBSTETRICS.*

ON MICROBES IN THE MILK OF NURSING WOMEN.
RINGEL. *Münch. Med. Wochensch.*, No. 27.

Escherich had found that among twenty-five healthy nursing women, the milk was sterile in twenty-four. Among thirteen women with puerperal fever, he found the staphylococcus twelve times. He concluded that the microbes had a genital origin.

Cohn and *Neumann* examined forty-three women, healthy or suffering from complaints other than puerperal fever. They found the staphylococcus forty-two times; four times they found the streptococcus pyogenes; and in each of these cases there was puerperal parametritis.

Palleske found the milk sterile in twelve cases among twenty-two healthy women, in the other ten he found staphylococci, which he concluded had an aerial origin.

In view of these discrepancies, Ringel examined the milk of twenty-five women, twelve of whom were healthy. Whilst taking minute precautions to insure accuracy, he found the milk sterile in only three cases; he obtained the white staphylococcus in seventeen, the yellow in two, the two together in one case, and in two instances he found the white staphylococcus together with the streptococcus. As the microbes could not be due to genital infection, the idea was suggested that they might come from the child's mouth, the white staphylococcus having been, in fact, found on the child's tongue. But having examined the milk of a woman who had not been suckling, and whose nipples had been disinfected,

Ringel still found the staphylococcus. He therefore leaves the question of origin undecided.

It has been found that the staphylococci are identical with those discovered by Rosenbach in abscesses ; yet they cause no inflammation of the gland. The reason is probably to be found in the fact that their virulence under these conditions is greatly diminished, and that milk seems to possess germicidal properties. If the micrococci be sown on gelatine, they develop well, except on parts where a drop of milk has been placed.

Ringel found the streptococcus only in cases of puerperal disease, and concludes that it gets into the milk by metastasis.

In an appendix, Ringel mentions that similar conclusions have been reached by Honigmann, who, however, does not attribute germicidal properties to the milk.

A. E. G.

IRRIGATION OF THE NON-PUERPERAL UTERUS, BY FRANK W. TALLEY, M.D. *Annals of Gynecology and Pædiatry*, December, 1893.

Dr. Talley employs irrigation of the uterus as an adjuvant to the treatment of inflammatory affections of its lining membrane. The instrument required is a small cannula perforated at the end and sides, with two pieces of wire soldered to its sides so that a space may be preserved for the reflux of the fluid. Dr. Talley uses a speculum, having its lower valve guttered and possessing a funnel on its distal end, to which a rubber tube may be fastened, draining into a jar placed beneath the table. The fluid used is a solution of 1 drachm of bicarbonate of soda and 20 grains of carbolic acid to a quart of water at 110° F. Two to four quarts of this solution are used. The cervix should be first mopped out with 1-40 carbolic acid, so that no septic matter may be carried into the uterus with the cannula. After completing the irrigation the cannula is allowed to remain in place for a few seconds, until

all the fluid in the uterus has drained off. Uterine colic is thus avoided.

The thick and tenacious muco-purulent discharge is dissolved and loosened in the alkaline solution, leaving a clean mucous membrane for the application of the alterative remedies. Dr. Talley has performed irrigation thus over 100 times, and as a result the patients experience almost immediate relief from those symptoms occasioned by a heavy engorged uterus. He has only twice seen mild uterine colic following the injection.

T. W. E.

THE DIAGNOSIS OF PELVIC INFLAMMATORY DISEASES,
BY HOWARD A. KELLY, M.D. *Annals of Gynæcology
and Pædiatry*, January, 1894.

The term "pelvic inflammatory disease" includes all affections of the tubes and ovaries resulting from infection of these organs or the pelvic peritoneum, also all inflammatory conditions not directly traceable to infection. As the result of this inflammatory process plastic lymph is thrown out, forming adhesions between the uterine appendages and the adjacent peritoneum and pelvic walls, pelvic floor, posterior surfaces of broad ligaments; *it is by means of these adhesions that true pelvic inflammatory disease is diagnosed.* This concomitant inflammation of the peritoneum is called according to its location, perisalpingitis, perioöphoritis or perimetritis. The more common affections of the tubes and ovaries exciting this inflammation of the peritoneum are salpingitis, pyosalpinx, tuberculosis and abscess of the ovary, and hydro-salpinx is often associated with it.

Pseudo-pelvieo-peritonitis is usually found in hysterical women who furnish many of the symptoms of, and present a history often closely analogous to, true pelvic peritonitis. Their history is one of dysmenorrhœa extending over many years, intense enough in some instances to confine the patient to bed for two or three days at each period. Many of these

patients are regularly addicted to opium or the bromides and the milder sedatives. As a consequence of the opium habit a well-marked cachexia is often present, which may prove misleading. From these symptoms the medical attendant often concludes that his patient has "ovaritis," "salpingitis," or "pyosalpinx," and if the patient complains upon pressure over one or both ovarian regions the doctor considers the diagnosis well established.

True pelveo-peritonitis.—All the symptoms just detailed may be considered of subsidiary value in making a diagnosis, for in cases in which there is a large accumulation of pus, dysmenorrhœa may not be present, and the patient may be free from pain for long intervals. Fever is a sign of value, but it is more frequently absent than present. It is possible for a patient to have a pelvic abscess and yet to remain in the most blooming health in spite of the abscess.

The essential points in the diagnosis of pelvic inflammatory disease are discovered by direct examination of the diseased organs by rectum, vagina and lower abdomen. If the cervix uteri cannot be easily displaced upwards, but is more or less immobile, and hard, resisting surfaces are felt lateral to the uterus, the diagnosis of pelvic inflammatory disease may be made. Marked pain or wincing under the examination, and an ill-defined sense of resistance do not justify a diagnosis of any kind. The inferior and posterior surfaces of the resisting masses detected through the vagina can be most distinctly felt through the rectum. A peculiar roofed-in, board-like hardness on one or both sides of the vaginal vault often characterises pyosalpinx and ovarian abscess. When by vaginal examination one is not able to detect more than a small mass of doubtful identity lateral to the uterus, a bimanual examination will often demonstrate this to be an inflamed adherent mass attached to the broad ligament. In making examinations by the rectum it is necessary, in order to palpate the pelvic structures clearly, to introduce the finger up beyond the ampulla.

The . . . examination.—The efficiency of the tri-

manual examination depends upon the fact that the normal uterus can be drawn down to the vaginal outlet without harm, and the tubes and ovaries also becoming displaced in proportion to the displacement of the uterus are thus brought within easy touch. To dispense with an assistant I have devised a third hand for the examiner in the form of a flat tenaculum, corrugated on one side to prevent its slipping under the fingers. The tenaculum is introduced into the vagina and hooked into the anterior lip of the cervix, which is now drawn gently down towards the outlet. The corrugated handle is grasped between the ball of the thumb and the last phalanges of the third and fourth fingers, while the index finger of the same hand is inserted into the rectum, and easily carried up to the top of the uterus, and laterally over the broad ligament tubes and ovaries. In order to exclude inflammatory conditions the finger must be passed around the ovary, clearly outlining its border and surfaces. In this way the most delicate adhesions are discovered.

T. W. E.

SHORT REPORT ON 200 CASES OF LAPAROTOMY, by Dr. W. N. ORLOFF. (From the Klinik of Prof. Lebedeff, of St. Petersburg.) *Centralblatt für Gynækologie*, Feb., 1894.

All the operations were conducted under antiseptic precautions. Sponges only were used in all cases, they were preserved in 5 per cent. carbolic solution, and cleansed in 2 per cent. carbolic during the operation. Sublimate silk and chromic catgut were used as ligatures.

The 200 operations may be classified as follows :—

Ovariectomy	...	...	...	...	69 cases.
Broad Ligament Cysts...	...	...	...	...	30 "
Salpingectomy	...	...	...	...	35 "
Myomotomy	...	...	...	...	22 "
Castration	...	...	...	...	31 "
Ventrofixation	...	...	...	...	2 "
Extirpation of Uterus	...	...	...	...	1 "
Splenectomy	...	...	...	...	1 "
Ectopic Gestation	...	...	...	...	3 "
Cæsarean Section	...	...	...	...	6 "

Of the 99 cases of ovariectomy and broad ligament cysts, 21 were instances of malignant tumours, 13 were cases of dermoid cysts, and of these 4 were double. In 2 cases only was it necessary to stitch the stump to the edges of the wound and these were examples of broad ligament cysts which could not be completely removed on account of extensive adhesions. Among important complications we notice 3 cases of pregnancy, 2 cases of spontaneous rupture of one of the cyst chambers, and 15 cases of suppuration of the cyst wall and torsion of the pedicle, in 3 of which there was partial gangrene of the cyst wall. In one instance the pedicle was completely torn through, and the cyst became nourished through its adhesions.

Of the cases of salpingectomy, 17 were examples of hydrosalpinx, 10 of salpingo-oöphoritis, 4 of pyosalpinx, 2 of tubercular salpingitis. In 22 of the 35 cases the appendages were diseased on both sides.

Of the 22 cases of removal of uterine fibro-myomata, in all but two the intra-peritoneal operation was performed, the stump being covered over with peritoneum.

Castration was performed 31 times, and in 27 of these cases the indication for the operation was uterine myoma. Of the 4 remaining cases 1 was for hysterio-epilepsy, with chronic ovaritis, 1 for hysteria with double peri-ovaritis, 1 for complete atresia vaginæ, 1 for retroversion of the uterus and double peri-ovaritis. Of these 4 cases, in 1 a complete cure resulted, and the other 3 were all much improved on leaving the hospital. The results of castration for uterine myoma were pretty good; in many cases the hæmorrhage ceased and the menopause ensued; in 18 cases an undoubted reduction in the size of the uterus occurred after the operation. In 1 case a tumour the size of the foetal head at term had entirely disappeared a year after the operation had been performed. In 8 cases there was no reduction in the size of the tumour, although the pain and all the other symptoms were entirely removed. In only 1 case did the operation fail to effect any **ement.**

Out of the 200 cases there were 7 deaths, 4 after myomectomy, 3 after removal of broad ligament cysts. Of these 7 cases 3 were due to casualties; pneumonia, ileus and heart disease, and 1 to chronic peritonitis 77 days after the operation, which was undertaken for the relief of the condition which ultimately proved fatal. In the remaining 3 cases death was directly due to the operation, the patients having succumbed to shock, hæmorrhage or septic peritonitis.

T. W. E.

A CASE OF FIBROMYOMA OF THE OVARY, by Dr. O. FEIS,
of Göttingen. *Centralblatt für Gynäkologie*, Feb., 1894.

The extreme infrequency with which these tumours are met with, arising from the ovary, renders the following case of great importance:—

A patient, aged 38, consulted Professor Runge on account of pain in the back and the left side. On examination under an anæsthetic, a tumour of the left ovary was discovered. Operation was subsequently undertaken and the tumour removed without difficulty. It was not at all adherent, and its site and connections were those of the normal ovary. The tumour was about the size of a goose's egg, the Fallopian tube running free upon it. On section it was seen to consist of dense fibrous tissue with calcareous deposits. There was a well marked capsule, which was, for the most part, easily separable. Under microscopic examination the capsule was seen to consist of dense fibrous tissue, containing few blood-vessels. Beneath the capsule was a layer of loose connective tissue rich in blood-vessels. The mass of the tumour consisted of similar fibrous tissue with numerous bundles of smooth muscle fibres, which were easily recognisable by their rod-shaped nuclei. The muscle fibres were found in every part of the tumour, and must be regarded as essential elements of the growth. At one spot, on the uterine aspect of the growth, a single Graafian follicle was found, proving the ovarian origin of the tumour.

T. W. E.

THE ETIOLOGY AND OPERATIVE TREATMENT OF VULVITIS PRURIGINOSA, by M. SÄNGER, of Leipsig. *Centralblatt für Gynäkologie*, Feb., 1894.

Pruritus vulva is an inflammatory affection of the vulva involving the cutaneous folds and the clitoris. It attacks the terminations of the sensory nerves, and induces itching, tickling and burning sensations. J. C. Webster considers the affection to be a subacute inflammation of the papillæ of the skin, and a progressive fibrosis of the nerves and nerve-end bodies (Pacinian bodies, &c.), especially attacking the clitoris and the upper parts of the labia minora. Webster's observations have furnished the only anatomical facts we possess with regard to this affection. Inasmuch as the disease depends upon an inflammatory affection of the corium, it may be appropriately termed vulvitis pruriginosa. Säger has never seen a case of marked pruritus, without obvious lesions of the skin, and concludes that the corium and nerve-ends are always affected. He considers, however, that the lesion of the nerve-ends is not the primary cause of the pruritus, but a secondary change, resulting from a local affection of the vulva, due to the action of irritants from without. Many observers have endeavoured to prove that the primary irritant is to be found in certain micro-organisms which may be discovered in the skin of the vulva. There is no proof forthcoming, however, that micro-organisms can induce the skin lesions; it is more probable that their presence is secondary to pre-existing local affections. Säger points out that if micro-organisms were the primary cause of vulvitis pruriginosa, we should get this affection accompanying all cases of catarrh of the bladder. The causes of vulvitis pruriginosa may be classed in two great groups.

I. ENDOGENOUS CAUSES.—(1) *Conditions of the blood.* Icterus, chronic nephritis, diabetes mellitus. (2) *Circulatory causes.* Hæmorrhoids, heart disease, pregnancy, retroflexion and tumours of the uterus (the latter by local obstruction to circulation). (3) *Skin diseases* (of hæmatogenous origin). Erythema, urticaria, herpes, eczema.

II. EXOGENOUS CAUSES.—(1) *Secretory causes.* Hyperidrosis and seborrhœa, vaginal and uterine discharges. (2) *Parasitic causes.* Animal parasites : pediculi, oxyuris vermicularis. Vegetable parasites : leptothrix, oidium albicans, micrococcus ureæ. (3) *Mechanical causes.* Masturbation. (4) *Thermal causes.* Spring and summer pruritus.

In the majority of cases of vulvitis pruriginosa, we can succeed by general and local treatment, in curing, or at least, greatly relieving, the complaint. In a small number of unusually severe and obstinate cases, we must resort to another method—the removal by operation of the diseased parts. The first operation for pruritus was performed by Carrard, in 1874 ; he removed only the clitoris, but a complete cure resulted. Since then similar operations have been performed by Chrobak, A. R. Simpson, Schröder, Rheinstädter, Olshausen and others. Heitzmann has obtained good results by scraping the affected parts. Sängcr has himself recently performed the operation of excision with the best results in two cases, which he reports at great length. Both were obstinate cases, associated with chronic leucorrhœa, and had resisted all other methods of treatment. The symptoms were so severe that the general health of the patients suffered considerably from loss of sleep. Sängcr in both cases excised the entire clitoris, and the entire extent of the labia majora and minora, and combined with this procedure repair of the perineum, which was required in both cases. Although the entire vulvar parts were thus removed, no difficulty was experienced in closing the wound, and after healing there was practically no visible deformity. Sängcr considers that the removal of the clitoris has no effect upon the sexual appetite in women of middle or advanced age. In both of these cases the sufferings of the patient disappeared entirely from the day the operation was performed. Sängcr closes with the following propositions :—

(1) The partial or complete excision of the vulva is a legitimate operation, which ought to be performed in chronic cases of vulvitis pruriginosa, which have resisted other methods of treatment.

(2) The clitoris may be removed without harm in all but young women.

(3) In young women, and in cases where the symptoms are localised to a part of the vulva, only the diseased portions should be removed.

(4) In older women, and when the vulva is extensively affected, the entire vulva should be removed, and the parts restored by plastic methods.

T. W. E.

A CONTRIBUTION TO THE SUBJECT OF GONORRHOEAL AFFECTIONS OF THE MOUTH IN INFANTS, by Dr. H. LEYDEN, of Breslau. *Centralblatt für Gynäkologie*, Feb., 1894.

An unmarried woman, age 20, was confined in the institution on January 17, 1894. She had profuse leucorrhœa, which, according to her own statements, had come on only during the last months of pregnancy. Immediately after the birth of the head the child's eyes were carefully washed with 1-7000 corrosive sublimate solution. On the seventh day marked swelling of the right eye appeared, with free, yellowish, clear discharge. The left eye was unaffected. The following evening a small, yellowish pustule, about the size of a pea, was found on the inner surface of the upper lip. There were numerous gonococci found in the discharge from the eye and from the pustule in the mouth. The swollen upper lip prevented the infant from taking the breast freely. The mouth was treated by frequent mopping with 1-7000 corrosive sublimate, and in nine days after its appearance all traces of the pustule had disappeared, with the exception of a little greyish epithelial desquamation. The eye affection was more obstinate.

Leyden considers it to be out of the question that the infant became inoculated during birth. He advances the theory that the infective lochia were transferred on the fingers of the mother to the hand of the infant, and points out how readily the eyes and mouth would then become

inoculated by the actions of sucking the fingers and rubbing the eyes, observed so frequently with new-born infants.

T. W. E.

THE TREATMENT OF VARICOCELE OF THE RECTO-VAGINAL SEPTUM, COMPLICATING UTERINE DISEASES.

Dr. Jules Chéron states, in the *Revue Med. Chir. des Maladies de Femmes*, January, 1894, p. 63, that varicocele of the recto-vaginal septum is not uncommon in those uterine affections which involve considerable pelvic congestion. Vaginal examination reveals the presence of a longitudinal swelling, thick, hard, and sensitive to pressure, starting several centimetres above the vulva and losing itself near Douglas' pouch. The coincident presence of hæmorrhoids will sometimes give a clue to diagnosis. The liver is often congested. *Dr. Chéron* recommends the following treatment :—

(1) Combat the abdominal plethora with pills of capsicum annum, each of $1\frac{1}{2}$ gr., one or two pills to be taken *in the middle* of each meal.

(2) Relieve the congestion of the pelvic organs by scarifications of the cervix, hot vaginal irrigations, etc.

(3) Apply appropriate treatment to the uterine disease.

(4) Meet the symptomatic lumbar neuralgia by means of sedative frictions, morning and evening, with the following liniment :—Chloroform $2\frac{1}{2}$ drms., sulphuric ether 4 drms., camphorated spirit 3 oz.

(5) The direct treatment of the varicocele of the septum consists in massage of the affected region ; slow, sustained pressure is applied to the posterior vaginal wall, from below upwards, *after local anæsthesia* by means of the introduction for five minutes of tampons saturated in a 10 per cent. solution of cocaine hydrochlorate.

A. E. G.

GONORRHOEAL FEVER DURING THE PUERPERIUM IN A WOMAN WHO HAD NOT UNDERGONE VAGINAL EXAMINATION.

Leopold (*Centralblatt für Gynäkologie*, 1863, No. 29, p. 675) reports a case of this kind. Patient, aged 18, gave birth to a child at term, after a labour of 7 hours 40 minutes. Perineum was intact. No examination was made before labour. Two days after delivery lochia were foetid. Vaginal irrigation of 1 in 4000 of sublimate was ordered. The temperature went up to 101.5° F. Three days later there was slight headache. The vagina was covered with a greyish deposit. The cervix was torn on the right side, and presented a greenish grey lining. An intra-uterine irrigation of 1 in 40 phenol was given, and the fever subsided. A bacteriological examination was made of the cervical deposit; masses of diplococci, and in several places typical gonococci were found. Leopold draws the following conclusions:—

- (1) A woman may have fever after labour, though no internal examination has been made.
- (2) The cause of such fever may be the presence of the gonococcus on and within the cervix.
- (3) Simple vaginal irrigation may not be sufficient in order to reach the infected locality.
- (4) A woman who had no suspicious vaginal discharge, either before or after labour, nevertheless showed undoubted signs, on the fourth day of the puerperium, of gonorrhœal infection.
- (5) In such a case the fever cannot be legitimately regarded as due to auto-infection.
- (6) When a woman is normally delivered, without having undergone vaginal examination, and develops fever on the third day after, there is ground for suspecting gonorrhœal endometritis; and no blame can attach in such a case to any of the attendants who assisted at the confinement.

A. E. G.

THE PUERPERAL STATE AND PRE-EXISTING MICROBIC INFECTION.

Dr. Léonce Prioleau writes on this subject in the *Archives de Tocologie et de Gynécologie*, January, 1874, p. 10. This paper may be read side by side with the article which we abstract, by Dr. Leopold, on gonorrhœal fever in the puerperium. Prioleau illustrates his paper with a number of interesting and important cases from his own practice, and from that of others; and he appends a full bibliography of the subject. His chief conclusions are as follows:—

(1) There exists a certain number of cases of “inevitable” puerperal infection; such cases are, however, rare.

(2) These occur under the following three conditions—

(a) When a woman is confined in an infected room or house. Prioleau gives a well-marked instance of a patient who developed erysipelas after miscarriage. A servant in the house had had erysipelas two months previously, and desquamation went on in the room, which was afterwards occupied by the lying-in woman. (b) The patient may suffer from a coincident infectious fever. The author gives instances of typhoid, influenza, &c., occurring under these circumstances. (c) The patient may previously have suffered from some infectious disease of the genital organs, including the adjacent peritoneum. Of this condition we have illustrations, in the form of gonorrhœa (*cf.* Leopold), leucorrhœa, tubercular peritonitis salpingitis, general miliary tuberculosis, and miliary tuberculosis of the uterus and adnexa. Such diseases do not necessarily give rise to puerperal troubles; but they are liable to break out afresh in the lying-in period.

(3) The mechanism of infection seems to be one of the following:—(a) Entrance of contaminated air into the genital passages. (b) Metastasis of germs to the placental wound, or to parts injured during delivery, through the medium of the blood. (c) Revival of an old genital lesion. With this may be compared an article, which we abstract, by Rocaz, on vulvovaginitis in young girls, in which he says that such lesions

may lie dormant for a time, and break out again after marriage.

(4) The practical deduction is that whilst antiseptic precautions should be always employed in labour cases, redoubled efforts should be used when there is any ground for suspecting previous microbial infection.

A. E. G.

ON HYDRORRHŒA GRAVIDARUM, by S. CHAZAN.

Centrablatt für Gynäkologie, February 3, 1894.

Three main sources of the fluid which escapes from the uterus during pregnancy have been indicated, viz., the uterine wall, the space between the foetal membranes, and the sac of the amnion. Œdematous infiltration of the uterine wall has also been spoken of by older writers as a cause of hydrorrhœa. Some of their cases bear the impress of truth, but we possess no precise knowledge of this form of hydrorrhœa. Decidual hydrorrhœa, however, is supported by clinical experience and anatomical facts, although there are many unsettled points about it. Hennig and Schröder believe that the fluid collects between the chorion and the decidua, while Kaltenbach and others consider that it lies between the opposed surfaces of the decidua vera and reflexa. The fact that the escape of fluid often begins in the third to fourth month, at a time when, under normal conditions, the two deciduæ have not united, supports the view of Kaltenbach. In the early period of pregnancy a space is found to exist between the decidua vera and decidua reflexa, which ordinarily contains only a little muous, but which might become distended with fluid by hypersecretion from the decidua, or by hæmorrhage. In recorded cases there has been no direct evidence produced that union had not taken place between the decidua vera and decidua reflexa; but this seems to be the probable explanation of the fact that the greatly thickened vera has been sometimes separately expelled after the placenta.

As to the nature of the pathological process which causes decidual hydrops, we are still in the dark. Braun emphasises the existence of previous endometritis with exudation. Hegar considers the morbid process to be of the nature of hypertrophy of the decidua, especially of its glands. Scanzoni believes it to be due to transudation dependent upon the condition of the blood. Zini regards the fluid as an extravasation resulting from the hyperæmia, and increased vascularity of the uterine mucosa. Chazan himself is inclined to refer it to the periodic congestion of the genital organs, which occurs during pregnancy, and induces morbidness, liability to abortion, &c.

It is well known that in many instances the amnion and chorion, instead of being glued together by an amorphous tissue, are separated by a collection of fluid, so that two sacs are present in the after-birth. It may be that these so-called fore-waters can escape during pregnancy, and thus explain some cases of hydrops; but this cannot be proved, because we know no sign by which these waters may be distinguished. Döderlein has proved that in a case observed by him, the fore-waters could not be chemically distinguished from the liquor amnii.

Dugès and Jörg indicate the allantois as a possible source of the fluid in hydrops.

There remains still that form of hydrops in which the liquor amnii escapes during pregnancy. Chazan records the case of a primipara, age 23, who consulted him when five months pregnant, for thirst, weakness, and breathlessness. He diagnosed hydramnion from the large size of the uterus. About the end of the sixth month labour pains set in, and abortion seemed about to occur. After the pains had lasted for some hours, however, a large quantity of watery fluid escaped, and the pains then gradually ceased. Fourteen days later a second escape of fluid occurred, preceded by pains of similar character to the first. The patient then went without any further loss of fluid to term, when a normal labour occurred, the child being strong and well developed. The

after-birth was carefully examined ; the chorion was found to be separated from the amnion over a wide area ; besides the opening through which the foetus had passed, a second aperture, as large as a sixpence, with slightly thickened edges, was found in the amnion in the separated area. T. W. E.

THE TREATMENT OF PELVIC INFLAMMATION. *Rôle of* HYPODERMIC TRANSFUSIONS.

In the *Revue Médico-Chirurgicale des Maladies de Femmes*, January, 1894, is the conclusion of an article by Dr. JULES CHÉRON on this subject. The paper contains observations of thirty cases of pelvic peritonitis, with or without cysts of the ovaries, treated by the hypodermic injection of artificial serum. The result claimed for this mode of treatment is that it causes absorption of effusions, and promotes the disappearance of adhesions. The author points out that in operative cases the main difficulty is caused by these adhesions, whilst "the extirpation of ovarian cysts, when the general condition is satisfactory, and the cyst is either movable or has contracted only slight adhesions to surrounding parts, is an easy operation of short duration, and of which the prognosis is essentially benign." Hence preparation for operation should consist of two indications: (1) To raise the tone of the patient's general health; (2) To overcome and disperse as far as possible any existing peri-ovaritis and resulting adhesions.

The use of hypodermic injections will, it is said, fulfil both functions; the first is secured by the raising of arterial tension and by improvement in strength and appetite; and the second by increase of the absorptive power of the peritoneum.

The ordinary dosage consists of a daily injection of 5 to 10 grammes (75 to 150 grains) of artificial serum. It is intended, not to replace, but to supplement measures already well-known, such as injections of hot water, ichthyol and glycerine tampons, etc.

The treatment is indicated in all pelvic exudations. The author has apparently obtained excellent results from his therapeutic agent; and if these be confirmed by other observers, it will no doubt take its place among recognised trustworthy procedures.

A. E. G.

GONORRHOEA IN LITTLE CHILDREN. Dr. CASSEL. *Berlin Klin. Wochenschrift*, 1893, No. 29, p. 693.

The author has made careful observations on 30 cases of vulvo-vaginitis in little girls, of ages varying from 7 months to 11 years. In 24 cases the presence of the gonococcus was plainly made out, by the usual methods; in 6 cases the bacteriological evidence was negative.

Seeking for the origin of the infection, in 10 cases Cassel could obtain no history. In one case a little girl of 3 years had been violated by her brother, aged 18 years, on the ground of a popular opinion that sexual intercourse with a very young child is a means of curing urethritis.

In three cases the mother had suffered from a vaginal discharge for some time. In three others the mother had contracted gonorrhœa from her husband. In another case the father was in the habit of taking the little girl into his bed, at the time he was suffering from gonorrhœa acquired during his wife's puerperium. In 4 cases the children had been in contact with other people living in the same house.

Cassel is persuaded that in most cases the gonorrhœa is not contracted by sexual intercourse, but by the promiscuous habits of living among the poor.

The prognosis is good, but the cure often takes at least two or three months: the difficulties of treatment consist, partly in the conformation of the vagina in children, whereby the secretions are not readily discharged; partly in the narrowness of the urethra, which renders the local treatment of urethritis difficult; and partly in the unfavourable hygienic conditions.

A routine part of Cassel's treatment is to combat the disease in the adults, when these are affected. The child must be isolated, and special care must be taken to prevent her inoculating her eyes by rubbing; general and local cleanliness is insisted upon, and injections of 15 to 20 cc. of 1 in 2000 perchloride of mercury solution are instituted, three times a day, each injection being preceded by irrigation with tepid water. After two or three weeks the sublimate solution is replaced by a solution of 1 to 1½ per cent. of nitrate of silver. It is not necessary to make urethral injections: the urethritis subsides when the vaginal discharge has stopped.

At the time of injection it is necessary that the little patient should be lying with hips raised and legs abducted.

A. E. G.

THE ORIGIN OF PUERPERAL OSTEOMALACIA, by HERMANN LÖHLEIN. *Centralblatt für Gynäkologie*, Jan. 6, 1894.

The supposition that osteomalacia is a disease of parasitic origin, has been repeatedly expressed, and by none more powerfully than Kehrer. The number of those who supported this view was never large, and many who were disposed to regard it as an infective disease, have found a direct contradiction of the theory in the fact that the disease has been cured by Porro's operation and oöphorectomy. These cures by operation, however, only serve to deepen the mystery enveloping this condition. However improbable it may appear that osteomalacia is due to the action of osteolytic micro-organisms, it is our duty, whenever opportunity offers, to examine affected portions of bone bacteriologically. So far as I know, no observations have hitherto been made upon bones recently affected. Such observations have now been made in a case occurring in this klinik.

Frau J. (age not stated), IV.-para, became affected with osteomalacia towards the end of her second pregnancy, seven years ago. In the third pregnancy, she was confined to bed

for fully six months, but after delivery improved rapidly, so that she was able to get up in three weeks. In her last pregnancy (last menstruation, April, 1893) the pains came on very early, but until the beginning of October, 1893, she could move about, although painfully; from that time she was bed-ridden. Examined on November 8, 1893, it was found that the thorax had sunk down upon the pelvis, there was great emaciation, and gently moving the pelvis, the ribs and the thighs caused great pain. Treatment by warm salt baths, phosphorus and cod liver oil, produced no improvement. On November 18, Porro's operation was performed. At the end of the operation I excised a small piece of the right iliac crest, of the size of a bean, with a sterilised scalpel, and placed it at once in peptone-glycerine-agar. The plate remained entirely sterile. Microscopic examination of numerous sections of the somewhat atrophied ovaries, showed that no micro-organisms were present in them either. As regards the patient, the result of the operation has not so far been very satisfactory. The pains disappeared much more slowly than in my previous cases, and at the end of the fourth week the patient could only just attempt to walk. Of the ultimate result I cannot speak until she has been for at least a year under observation.

T. W. E.

ON A PLASTIC METHOD OF DILATATION IN STENOSIS OF THE CERVIX, by Prof. D. VULLIET. *Centralblatt für Gynäkologie*, Jan. 20, 1894.

The object of the operation which I am about to describe, is by a plastic method, to enlarge the calibre of the cervical canal, when it is stenosed, either at the level of the orifices, or in its entire extent. It is only indicated when the stenosis has resisted other methods of treatment, and the symptoms justify the procedure, which certainly exceeds in severity the operations usually performed in such cases. We know how numerous are the cases in which a woman suffers from dysmenorrhœa, sterility, or endometritis, caused

by retention. Stenosis, having its seat in the lower uterine segment, is the commonest cause of these changes, which often so far injure the mental and bodily health of the patient that a surgical attack becomes justified. The typical condition of the cervix in women who suffer from the above described symptoms is as follows :—Os externum contracted, vaginal portion elongated and bent forwards, body of uterus markedly anteflexed, cavity somewhat widened and lengthened. At the junction of the cervix and body of the uterus, is an angle which coincides with the os internum. At this point the uterine tissue is sclerosed and generally very hard. By bi-manual examination the angle of flexion can be felt above the vaginal portion. For long I have treated these patients by the ordinary methods (catheterisation, dilatation, division), but none of these procedures have yielded satisfactory results in obstinate cases. A canal, surrounded by contractile tissue cannot be permanently widened either by catheterisation, or by the continuous presence of a dilator in its lumen. It returns too rapidly to its original calibre. For the same reason incision fails also, for the concentric contraction of the walls closes all incisions, either immediately or shortly after they have been made. These considerations induced me to seek a remedy in the opposite direction, and to find a flap by means of which I could increase the circumference of the walls which surround the cervical canal. This object I believe I have attained. It is true, I have only performed the operation once, and that without a completely satisfactory result; but the case suffices to show that the operation is easily performed, and attains the desired end. The operation is performed as follows :—

(1) The cervix and vaginal roof are drawn downwards and backwards, so that they stand well displayed at the level of the vulva.

(2) A crescentic incision divides the anterior vaginal wall at its insertion into the cervix. The anterior vaginal wall is then carefully dissected up, the separation being carried up the anterior uterine wall as high as the angle of flexion, so as

to expose it. If the crescentic incision does not give sufficient room a second incision perpendicular to it is made in the middle line of the vaginal roof. Then when the flaps are separated and carried to either side, a triangular wound results which offers abundant room. A sound is now passed into the bladder; if the base of the bladder be exposed in the wound it must be pushed away and protected from injury.

(3) A long hollow sound is now passed into the uterus; the assistant who holds it turns the groove towards the operator, and carries the uterus forwards.

(4) The operator feels the instrument with his finger, and then introduces the point of the knife, and when he is sure that the point is in the groove of the sound he prolongs the incision in the line to a point 1-2 mm. above the upper limit of the contraction. The knife is now removed and again introduced at the point in order to make a second horizontal, or rather spiral incision, running round the left side of the cervix to end at the os externum at some point on the posterior aspect of the cervix, the length of this incision determining the length of the flap which is about to be raised. It is noteworthy how readily the flap can be cut in this way. When separated the flap is seen to be triangular, and hanging from the right side of the cervix. Through this attachment the flap is nourished until it becomes united with the tissues in its new position.

(5) The apex of the flap is seized with forceps, carried to the point and fixed there with a stitch. One or two stitches on either side unite the flap with the walls of the incision.

It now only remains to close the wound in the cervix completely.

The T incision is to be preferred to the simple crescentic incision, because it gives freer access to the field of operation, also because it permits of more satisfactory closure of the vaginal wound. The advantage is that it is easy to unite the point of the vaginal wound with that of the uterine wound. The ends of the suture introduced at the point are carried through the edges of the vaginal wound and then knotted.

The ante-uterine cellular tissue is thus at once shut off. If the simple crescentic incision be employed the upper uterine stitches are buried. It will be seen that a part of the flap is destined to remain vaginal; the upper part on the other hand, which will lie above the vaginal insertion, buried in the parametrium, must have its mucous membrane removed or it cannot unite with the surrounding tissues; the mucous membrane of the lower part must not be removed. The mucous membrane should be removed immediately before the operator detaches the flap, otherwise the process will be tedious and difficult.

The operation is contra-indicated when the uterine cavity is the seat of a virulent catarrh. But it is seldom possible to completely cure the chronic catarrh which generally accompanies obstinate stenosis of the cervix, and the operation must therefore at times be undertaken under more or less unfavourable circumstances. In order to ensure success the uterus and vagina must be douched for some time, both before and after the operation, and the wound itself must be most carefully cleansed. In the case upon which I operated the entire supra-vaginal part of the operation succeeded. The upper part of the flap united completely with the edges of the uterine incision, and a large sound passed easily, whereas, previously, the finest sound would hardly pass the angle of flexion. In the vaginal portion the edges of the wound did not unite, so that a fissure was formed in the middle line in front. The non-union was due to the influence of the catarrhal secretion. The fissure will be closed by a subsequent operation.

T. W. E.

ICHTHYOL IN THE TREATMENT OF THE DISEASES OF WOMEN, by VON HERFF, of Halle. *Centralblatt für Gynæcologie*, Jan. 27, 1894.

Von Herff has used ichthyol in 5,700 out-patient cases, and 1,200 in-patient cases. The result of his experience is as follows:—The action of ichthyol in relieving pain has been

fully proved, but von Herff is not convinced that it has such conspicuous resorbent powers as alleged. The use of ichthyol pills von Herff considers useless, inasmuch as its action upon the sexual apparatus is a local one, but he does not deny that the remedy may improve the general health by relieving indigestion. Ichthyol inunction von Herff has abandoned, for used in this way it has no advantage over iodine or mercury. The best results were obtained in cases of parametritis, pelvic peritonitis, gonorrhœal peritonitis and atrophic parametritis. In slight cases of fissure of the anus, the use of 10 per cent. ichthyol-glycerine is followed by the happiest results. In pruritus vulvæ the results obtained were less satisfactory. Eczema of the external pudenda is readily cured by ichthyol-zinc ointment. Von Herff has given up treating fissures of the nipple with ichthyol, on account of its unpleasant odour, which deters the infant from taking the breast.

T. W. E.

ON PELVIC ABSCESS.—An address delivered at Birmingham at the opening meeting of the Midland Medical Society, Nov. 2, 1893, by C. J. CULLINGWORTH, M.D., D.C.L., F.R.C.P. *Clinical Journal*, Nos. 2 and 3, vol. iii.

This address was, in a sense, a continuation of the address on obstetrics and gynæcology before the British Medical Association at Newcastle, and dealt with various subjects illustrating the light which modern abdominal surgery had shed on pelvic disease in the female. Referring to the old division of pelvic inflammation into the two classes of peri- and parametritis, Dr. Cullingworth said that it had now been shown that while catarrh and injury might be, and often were, factors in the production of these diseases, they were not the essential factors; there must be always an *infection* of some kind. Further, the time had now come to discard "pelvic abscess" as a general term, and to aim, in every case of pelvic suppuration, at a more exact diagnosis than the use of such a term would imply.

Abscess in the connective tissue of the pelvis.—This was the simplest form of pelvic suppuration, and the one to which Dr.

Cullingworth would like to see the use of the term pelvic abscess restricted. It was important to recognise that, as Professor Keiller, of Texas, pointed out (*Amer. Jour. of Obst.*, Sept., 1893) inflammation of the pelvic connective tissue differed in no way from inflammation of the same tissue in other parts of the body, which were more accessible to sight and touch. Primary cellulitis was always an acute affection, and was always septic in origin. The distribution of pelvic cellulitis was determined mainly by the fact that the peritoneum, which was in most places loose enough to admit of being lifted up by the effusion, was firmly attached to the subjacent organs in the following situations, viz., the anterior surface and sides of the rectum, the upper part of the posterior wall of the vagina, the posterior surface and fundus of the uterus, the anterior surface of the body of the uterus, and the posterior surface of the bladder. These parts being for the most part in the middle line, it followed that cellutitic exudations were mostly limited to one side. The principal causes were of two kinds, lacerations of the cervix and vagina during labour, especially instrumental, and surgical measures practised on the vagina and cervix. He believed that abortion, as a cause of pelvic cellulitis, was very rare: in twenty-two uncomplicated cases during five years at St. Thomas' Hospital not a single one followed abortion. In this connection he alluded to the fact to which Professor Keiller had called attention, that the pelvic glands probably, as a rule, undergo suppuration.

The position in which pelvic abscess pointed, was given in the following table:—

TABLE I.					
<i>Cellutitic Abscess in Pelvis, 1889-93.</i>					
Pointed above Poupart's ligament—					
Right side	...	...	...	...	9
Left side	...	...	...	...	9
					— 18
Pointed over iliac crest	...	...	...		1
Opened before pointing occurred; abscess situated in posterior wall of pelvis					
		...	...		3
					— 22

During pregnancy the broad ligaments were drawn up, so that their base was at the level of the brim of the pelvis. The whole of the lateral space below the pelvic brim was at this period occupied by cellular tissue; hence the ease with which inflammation could spread to the region above Poupert's ligament. The common statement that cellulitic abscesses frequently burst into the rectum was attributed to the confusion that formerly existed between pelvic cellulitis, and intra-peritoneal suppuration arising from diseased ovaries and tubes.

The most frequent time for the abscess to point was between the seventh and twelfth week after delivery.

Treatment was comprised in two words—incision and drainage. There was no need to do an abdominal section; the abscess should be opened where it pointed. Thereafter the tendency was to complete and rapid recovery.

Other forms of pelvic suppuration.

The following table gives the relative frequency of these conditions, in 83 cases:—

TABLE III.

Purulent salpingitis (including pyosalpinx) ...	37
Purulent salpingitis, with suppurating cyst of ovary (eight communicating)	13
Suppurating cyst of ovary	17
Tubercular disease of tube	3
" " of ovary	3
" " of tube and ovary	1
	— 7
Disease of vermiform appendix	1
Suppurating retro-peritoneal cyst	1
Suppurating lumbar gland	1
Undetermined	6
	— 83

This table showed that purulent salpingitis was by far the most frequent source of intra-pelvic suppuration; it occurred in upwards of 60 per cent. of the cases.

Suppurating cysts of the ovary, a form of pelvic suppuration frequently unrecognised.—He had been struck with the number

of these cases that he had met with in his own practice. When the cyst was large enough to attract attention, diagnosis was easy; but if small, the case was frequently sent in as "acute pelvic cellulitis," and the cause might remain unrecognised even after the abdomen was opened. The matting together of the parts was often enough to account for this. Further, such a cyst often became adherent to the broad ligament, which was then drawn over it, concealing it like a hood. When fluctuation was felt, a trocar might be passed through the broad ligament into the cyst, giving the impression of a collection of pus, either in the broad ligament, or behind the parietal peritoneum. The proper treatment was, not to tap, but to enucleate the cyst. The cause of suppuration in these cysts, as shown by Table IV., was generally purulent salpingitis, viz., in 83 per cent. of the cases.

TABLE IV.

Suppurating Ovarian Cyst (intra-pelvic).

Directly communicating with suppurating Fallopian tube	...	...	8
Adherent to suppurating Fallopian tube	...	...	5
„ inflamed Fallopian tube	...	...	12
„ ulcerated vermiform appendix	...	...	1
Source of infection undetermined	...	...	4

—
30

With regard to tubercular disease, Dr. Cullingworth believed that when the disease was limited to the appendages, removal gave very good results.

In conclusion, the address deals with the subject of *fistula as a complication of pelvic suppuration*. A single example of each of the main varieties of this form of fistula was given. These very instructive cases should be read in full. We can here only mention them.

Case I.—Rectal fistula, due to the rupture of a suppurating dermoid into the rectum, six weeks after confinement (This case formed the subject of the commentary on a case in obstetric medicine, at the London M.D. Examination, 1892.)

Case II.—Vaginal fistula, arising from purulent disease of the appendages of the right side.

Case III.—Cervical fistula, due to ulceration of a suppurating dermoid into the cavity of the uterus in that situation.

Case IV.—Vesical fistula, arising from the rupture into the bladder of an abscess arising in connection with the appendages of the right side.

Dr. Cullingworth concludes :—" I have narrated these cases with two objects specially in view. The first was to show that when pelvic suppuration is complicated by internal fistulæ, the suppuration is not cellutitic, however much it may simulate it, but is due to intra-pelvic disease that can only be properly dealt with by abdominal section. The second object I had in my mind was to show the feasibility, even in the most unpromising cases, of complete removal of the disease, and to urge the superiority of that method of treatment over the mere emptying and draining of the suppurating cavity and the stitching of the edges of the sac to the abdominal incision."

A. E. G.

FIBROMA OF THE OVARY. DELAGRANGE. *Arch. de Tocol. et de Gynéc.*, Dec., 1893.

The author records a case of a patient with an abdominal tumour, which she had observed for two months; she had amenorrhœa for three months; she had had no abdominal pain except one bad attack five years previously. On examination the tumour was found hard and fixed, measuring thirteen inches transversely, and nine vertically. Percussion-note dull. Cervix small and conical. The length of the uterus could not be measured. A fibroid tumour was diagnosed. At the operation the tumour was found to have a double pedicle, part consisting of the expanded broad ligament, and part formed mainly of large veins, and appearing to be twisted. The tumour, after removal, presented a portion like a hilum, into which the vessels passed. The structure

was that of a fibromyoma. In the centre was a softened portion, the size of a large orange, and containing blood-clots. The weight of the tumour was 3 kilogrammes, or 6½ lbs.

A. E. G.

SOME CONSIDERATIONS ON THE PROGNOSIS AND TREATMENT OF VULVO-VAGINITIS IN LITTLE GIRLS. ROCAZ.
Arch. de Tocol. et de Gynéc., Dec., 1893.

This affection is, according to the author, of great importance in view of the complications attending it. Of these he enumerates and discusses the local troubles, such as ulceration of the labia and abscess of the Bartholinian glands; conjunctivitis (produced by inoculation with the child's fingers); arthropathies (probably allied to those of gonorrhœal origin); purulent otitis, and peritonitis. In addition to these, the general health of the child may seriously suffer. This is especially the case in strumous children, the diathesis forming a predisposing condition. But the vaginitis may itself cause general ill-health, particularly anæmia. Rocaz thinks many cases of metritis in virgins may be accounted for by a latent vaginitis, contracted in childhood, and taking an active form at puberty, as soon as the uterus becomes functional. Later, sexual intercourse may also start the latent disease, which is liable to be erroneously attributed to a chronic urethritis on the part of the husband.

Treatment.—All merely vulvar applications, such as lotions, cauterisation, applications of iodoform, salol, medicated baths, &c., are useless. They relieve the vulvar irritation, but leave the vagina untouched. Vaginal bougies are not to be depended on, and cause great irritation: the child generally tries to get rid of them, and thus increases the irritation. Irrigation of the vagina is the only rational treatment; various antiseptics have been tried, such as acetate of lead, sulphate of zinc, phenol, resorcin, and perchloride of mercury. Of these the last acts best; but its effects are not lasting, and it may cause much irritation. Rocaz strongly recommends

permanganate of potash, and has found it rapid and certain in its curative action. He begins with a 1-4000 solution, injecting about a pint three times a week. After a few injections he gradually increases the strength up to 1-250. In two to four weeks a cure may be relied on. In the intervals of the irrigations, he orders hot baths. He relates three cases as examples of the good results attending this treatment.

A. E. G.

NOTES ON THE AFTER-TREATMENT OF CASES OF ABDOMINAL SECTION.

In the December number of the *Birmingham Medical Review*, Mr. Christopher Martin has some further notes on this subject. He deals with the principal complications that are apt to occur after laparotomy, viz., peritonitis, extra-peritoneal hæmatocele, intestinal obstruction, stitch abscesses, rupture of the wound, parotitis, surgical rashes, perforation of the bowel and fæcal fistula, and ventral hernia. These are all dealt with in the practical tone of experience, and the paper will well repay careful reading.

The first three complications enumerated require further mention here.

Peritonitis is, according to Mr. Martin, "a preventable disease"; prophylaxis consists in asepsis. With this view we cordially agree. Mr. Martin then proceeds to enumerate the precautions to be used; and whilst some of them, such as shaving of the pubic hair and cleansing the skin of the abdomen with turpentine and soap, followed by antiseptics, will seem superfluous to "tap-water surgeons," we think it is far better to use these extra precautions, than to not be careful enough. It is not easy to decide between the rival claims of the strictest school of asepsis, and those who use tap-water, and discard all antiseptics, and who yet get excellent results, but we would advise the commencing operator to begin on the lines of the former, if he wishes to have a low mortality. He can leave off superfluities when he finds them to be such.

Some of Mr. Martin's aphorisms are worth noting, *e.g.*, "In cases where indicated, the use of the drainage tube is a potent preventive of peritonitis." "An early movement of the bowels should be secured, unless during the operation the intestine has been injured." "We may predict recovery if the bowels move freely, the abdomen become softer, the vomit lighter, the face brighter, the tongue moister, the pulse slower."

Mr. Martin sums up treatment in one sentence: "Get the bowels moved." It is, he says, "a race and a fight between us and the disease for the command of the bowels. If we can purge the patient, she will almost certainly recover." In harmony with this line of treatment (which will not, however, command universal assent) is the further direction: "No morphia should be given as long as a chance of life remains. It would only increase the intestinal paralysis and seal the patient's doom."

Extra-peritoneal hæmatocele may occur at the time of operation, *e.g.*, from the wounding of a vessel in the broad ligament, while transfixing the pedicle. More often it "has its origin in an abortive attempt on the part of the nerve centre governing the process of menstruation, to bring about the menstrual flow." We may remark in passing that we think it is yet too early to speak of "the nerve centre" in question, and of the "menstrual nerves" referred to a little later.

Mr. Martin then describes the anatomy of a hæmatocele, the course it takes, and its possible terminations. Those last are: (1) Rupture into the peritoneal cavity; (2) The patient may bleed to death into her own extra-peritoneal tissue; (3) Suppuration; (4) Natural absorption; (5) Recurrence after an interval of weeks or months.

The clinical features are succinctly described. The time of onset is usually a few days before the date of the next menstrual period after operation. Vaginal examination reveals a mass, in the words of Mr. Tait, "like an irregularly-shaped jelly-fish, rounded above and concave below; and the

edges of the mass are felt to fade off downwards on the walls of the pelvis, just as the groins of a Norman crypt fade off on the brackets or capitals which support them." On rectal examination the characteristic annular stricture is felt in cases where the blood has dissected backwards around the rectum.

The treatment recommended is sound. Leave Nature to arrest the hæmorrhage, but if it has evidently burst into the peritoneum, open the abdomen at once, and re-ligate the bleeding broad ligament. "Never be tempted to use the aspirator 'to clear up the diagnosis' unless there be undoubted evidence of suppuration." When the effusion has clearly become purulent, and especially if there be septic symptoms, it should be evacuated without delay.

Intestinal obstruction may result from :

(1) Inclusion of intestine between the lips of the abdominal wound.

(2) Transfixion of intestine while suturing the wound.

(3) Constriction of the rectum by utero-sacral folds, when there is much tension on the stump after hysterectomy.

(4) Annular constriction of the rectum by a hæmatocele.

(5) Paresis of the bowel from atony and flatulent distension, in a feeble woman after removal of a large ovarian tumour.

(6) Paresis due to peritonitis.

(7) Secondary obstruction. (*a*) Due to adhesion of a coil of intestine to a raw surface, such as the cut surface of a pedicle, left at the close of operation. (*b*) Due to matting of intestines after peritonitis.

The appropriate treatment is discussed under each head.

A. E. G.

MEDICAL NEWS.

DINNER OF THE BRITISH GYNÆCOLOGICAL SOCIETY.—The first dinner of the Society was held at the Holborn Restaurant on January 18, when about ninety fellows and guests assembled to celebrate the occasion. The chair was occupied by Mr. Bowreman Jessett, the retiring President, and among those present were Dr. Pavy, F.R.S., President of the Pathological Society; Dr. C. J. Hare, Treasurer of the Royal Medico-Chirurgical Society; The Master of the Society of Apothecaries; Dr. Dawson Williams (of *The British Medical Journal*); Dr. A. S. Gabb (*Medical Press and Circular*); Mr. G. Brown (*Medical Times and Hospital Gazette*); General Routh; Surgeon-General Ligertwood; Dr. T. Savage (*President-elect*); Dr. Granville Bantock; Dr. C. J. Routh; Mr. Stanmore Bishop; Mr. Lawson Tait; Dr. P. Abraham; Rev. J. Gordon Napier; Dr. Weldon and others, with many of the leading Fellows of the Society. The stewards' list was as follows:—G. Granville Bantock, M.D., F.R.C.S.Ed.; Fancourt Barnes, M.D., F.R.S.Ed.; Robert Barnes, M.D., F.R.C.P.; C. H. Bennett, M.D.; M. G. Biggs, M.R.C.S.; Edward Blake, M.D.; W. H. Bourke, M.D.; W. Dudley Buxton, M.D., M.R.C.P.; Geo. Roe Carter, M.R.C.P.I., &c.; R. J. Colenso, M.A., M.B.Oxon.; E. Tenison Collins, M.R.C.S.; George Crichton, M.B., L.R.C.S.Ed.; J. Halliday Croom, M.D., F.R.C.P.Ed.; W. A. Dingle, M.D., &c.; T. M. Dolan, M.D., F.R.C.S.Ed.; E. F. Brockman Drake, F.R.C.S.; G. Mordant Dundas, M.R.C.S., &c.; George Elder, M.D.; Wm. Fearnley, L.R.C.S.Ed., L.R.C.P.Lond.; W. H. Fenton, M.A., M.D.; Clement Godson, M.D., M.R.C.P.; W. Chapman Grigg, M.D., M.R.C.P.; G. B. Hicks, M.R.C.S., &c.; R. H. Hodgson, L.R.C.P.Ed., &c.; Edmund Holland, M.D., M.R.C.P.; F. Bowreman Jessett, F.R.C.S. (*President*); H. MacNaughton Jones, M.D.; Lewis Jones, M.D.; J. Macpherson Lawrie, M.D.; W. Murray Leslie, M.D., F.R.C.S.Ed.; Henry Lewis,

M.D. ; Deputy Surgeon-General Ligertwood, M.D., F.R.C.S. Ed. ; R. Marsden Low, M.B., D.P.H.Camb. ; J. A. Lycett, M.D., M.R.C.P. ; H. Michie, M.B., C.M. ; J. A. Mansell Moullin, M.D., M.R.C.S. ; Leith Napier, M.D., M.R.C.P. ; J. C. F. Naumann, M.D. ; R. O'Callaghan, F.R.C.S.I. ; H. Campbell Pope, M.D., F.R.C.S. ; George A. Rae, L.R.C.P.Ed., &c. ; Adolph A. F. Rasch, M.D., M.R.C.P. ; C. H. F. Routh, M.D., M.R.C.P. ; Thomas Savage, M.D., M.R.C.P., F.R.C.S. ; F. F. Schacht, B.A., M.D. ; John Shaw, M.D., M.R.C.P. ; J. A. Shaw-Mackenzie, M.B. ; Alfred J. Smith, M.B., M.A.O. ; Heywood Smith, M.A., M.D., M.R.C.P. ; Richard J. Smith, M.D., M.R.C.P. ; Brice Smith, A.B., M.B., B.Ch. ; J. W. Smyth, L.R.C.P. and S.Ed. ; W. Dunnett Spanton, F.R.C.S.Ed. ; Lawson Tait, F.R.C.S. ; J. W. Taylor, F.R.C.S. ; A. W. Thomas, M.R.C.S., &c. ; David Thomson, M.D. ; W. Travers, M.D., F.R.C.S. ; Abraham Wallace, M.D. ; Ed. Geo. Whittle, M.D., F.R.C.S.

Drs. Granville Bantock, Mansell Moullin, Leith Napier, Schacht and Campbell Pope acted as croupiers. The Rev. Gordon Napier said grace.

After an excellent dinner had been partaken of, the PRESIDENT called on the senior Secretary, Dr. Leith Napier, to read many telegrams and letters of apology for non-attendance. The President of the Royal College of Physicians, the President of the Royal College of Surgeons, the Director-General of the Army Medical Department, the Director-General of the Navy, the senior Vice-President of the Medico-Chirurgical Society, the President of the Medical Society (who was prevented by illness), the President of the Harveian Society (who was engaged at the Annual Conversazione), Drs. Horrocks and Duncan, Secretaries of the Obstetrical Society (who were both engaged at the examinations of the Conjoint Board of the Royal Colleges), Drs. Galabin and Cullingworth, Clement Godson, Chapman Grigg, Halliday Croom, Lewis (Folkestone), and others, regretted their inability to be present.

The toast list comprised the usual loyal and patriotic toasts. The "Royal Toast," and the toast of the "Navy and Army Reserve Forces" were proposed in felicitous terms by the President.

Surgeon-General LIGERTWOOD replied in a telling and forcible

speech, tinctured with humorous recollections, of the characteristic pluck and undaunted courage of the wounded he had treated on the battle-field.

Dr. PAVY, F.R.S., proposed the toast of the evening, "Success to the British Gynæcological Society," in a speech of great interest, and relieved by kindly humour. He related that the Society came into being in 1884, but whether produced by gemination, fission, or an act of generation, he was not prepared to say, although seeing that all connected with its production were obstetricians or gynæcologists, he rather inclined to the generation theory. Being generated, its sturdy vitality was demonstrated by the rapidity of its growth, he understood that it now numbered some 500 members, and that its ramifications extended throughout London and the provinces, Scotland, Ireland, and even to the Colonies and Continent. He had pleasure in proposing success to the Society, and in coupling with the toast the name of their chairman.

In reply, the PRESIDENT thanked Dr. Pavy for the very cordial and generous way he had proposed the toast. It was a great satisfaction to all present, as it would be to all the absent friends of the Society, that so distinguished and world-renowned a physician as Dr. Pavy had been pleased to speak of the Society as he had done, and in such a warm and appreciative manner. He said further: "It may not be out of place on such an occasion as this to give a short history of the origin of this Society, and of the reason why it was thought to be not only desirable, but absolutely necessary for such a Society as the British Gynæcological Society to be established.

"To do this I think it will be well to give you a brief outline of the growth of gynæcology during the present century, and for this purpose I will carry you back to the year 1823. When that great man, Dr. Blundell, a man who lived half a century before his time, read a paper before the Medical and Chirurgical Society, based upon experiments he had made upon animals, and from observations of the tolerance of the abdomen in man when wounded by accident or design, he concluded that moderate openings might be made in the human peritoneum which would not necessarily or even generally prove fatal from inflammation or otherwise, and further, that certain viscera or parts of viscera could be removed with comparative safety. He

proposed that the Fallopian tubes might be divided, the ovaries removed, ovarian cysts extirpated, cancerous uterus excised, and in rupture of the bladder into the peritoneum that the abdomen should be opened and the peritoneum washed out. This paper was thought so little of by the Society before whom it was read that it was not deemed worthy of a place in the *Transactions*, and the doctrines propounded were looked upon as being wild and extravagant by his reviewers. I do not find any record of his having put his theories into practice.

"After this the art of gynæcology seems to have slumbered until the year 1834, when the first speculum was introduced in London from Paris. This instrument for some years was looked upon with horror by many of the physicians and surgeons of the day. This was followed some twenty years after by the introduction of the uterine sound. It was not, however, until the year 1843 that the study of diseases peculiar to women was really made the subject of special attention; it was in that year that a hospital for women was established at Alabama in America by the late Dr. Marion Sims, and in the same year in this country the Soho Hospital for Women was established through the instrumentality of Protheroe Smith, followed in 1847 by the Samaritan Hospital, and later the New Hospital and the Chelsea Hospital. It was asked what was the use of these special hospitals? The answer is that at the general hospitals at the time, and indeed, in some of the general hospitals now, gynæcology is in the unenviable position of being between two stools, as the late Dr. Aveling remarked, "try the physicians and surgeons, and between the two it often fell to the ground."

"It cannot be disputed that the art of gynæcology has advanced so fast that it must become a special study. Now, what have the special hospitals done? In the first place, they have been the means of forcing upon the general hospitals the fact that gynæcology has been to a very great extent neglected. Further, through the position taken in the earlier days by the late Tyler Smith at St. Mary's, and Dr. Robert Barnes at St. George's Hospital, the gynæcologist became not only physician but surgeon. In other words, the physicians who made this branch of the profession their special study in most general hospitals, now operate upon their own cases without calling in the aid of the general surgeon. And surely this is as it should be,

I would ask where would gynæcology be now if it had not been for the work done at special hospitals? Would Sir Spencer Wells ever have achieved the success which has immortalised his name for ever? Ovariectomy, introduced by Clay and Baker Brown and Sir Spencer Wells had, in its early days, a mortality of some 90 per cent., whereas now it has been reduced to something under 5 per cent. Would the important discoveries and contributions of Sir J. Simpson to the foundation of gynæcology ever have been made? or the brilliant results of Bantock, Keith, Tait, Knowsley Thornton been attained? What made the names of Battey and Emmet famous but the knowledge they obtained at special hospitals? It will be observed I refrain from touching upon the knowledge acquired by other London hospitals from special hospitals—the eye, the throat, the ear, all of which were founded before these subjects became a special study at the general hospitals.

Such was the growth of gynæcology that in the year 1858 the profession found it impossible to discuss with advantage the subject at the Medical or Medico-Chirurgical Societies, and hence the Obstetrical Society was founded as an off-shoot. This Society has always done, and is still doing, excellent work, and all-sufficient to meet the demands of the special department for which it was instituted; but such, however, was the rapid strides made in gynæcology that in the year 1884, ten years ago, it was deemed by a number of prominent and leading gynæcologists absolutely essential for the thorough discussion of gynæcological surgery that more time should be available for the reporting its progress, exhibiting specimens, and the reporting of cases, than was possible at the Obstetrical Society. And here let me remark that this Society was founded in no antagonistic spirit to the parent Society, but merely on account of its being found impossible, in the compass of the meetings of two hours each, to include all that was going on both in obstetrics and gynæcology, and it was felt that a large quantity of most valuable material was being lost by so short a time being devoted to the subject. What has been the result? Have the results proved, or not, that this Society was needed? Reference to the *BRITISH GYNÆCOLOGICAL JOURNAL* will, I think, show that if the Society had not existed, much valuable work which has been performed by prominent gynæcologists would have been lost to the profession. To attempt to pass in review what

has been done in these ten years would occupy far too much time for me to attempt to enumerate here. Incidentally I may mention that the pathology and operative treatment of tubal gestation, improvement in the treatment of the stump in abdominal hysterectomy, the treatment of cancer of the uterus, vaginal hysterectomy, supra-vaginal amputation, have all been the outcome of the discussion at the meetings of the Society, and have been the means of greatly increasing our knowledge and establishing gynaecology on a sound and permanent basis."

The senior HON. SECRETARY proposed "The Kindred Societies." He expressed regret that Dr. Robert Barnes, the Hon. President of the Society, was prevented by illness at the last moment from undertaking the toast. He felt that the subject was worthy of all the ripe experience, wide knowledge and forcible eloquence possessed by Dr. Barnes; but although he could claim none of these, he could and did assert that in sincerity and cordiality of the sentiment of brotherly feeling towards his co-workers in other societies, he would yield to no one. He thought that the Gynaecological Society was now strong enough and prosperous enough to deserve the recognition it had obtained. It augured well for its future that gentlemen from other societies, whom they had the privilege of seeing here to-night, had come to meet them in so cordial and so friendly a spirit. He spoke of the one aim, the singleness of purpose, which should animate all men banded together, and referred to the advantages of belonging to more than one Society. The time had gone past for the littleness and small narrowness of believing that any one Society was capable of doing all that it should; by a cultivation of the *entendement cordiale* by a recognition of the elements for good in all, and by the mutual helpfulness of not only individuals, but societies to each other, we would come to a better knowledge of each other, and obtain a greater furtherance of the high aims to which all aspired. Much had been done by co-ordination of work—much more remained yet to be effected in the future. He referred to the great satisfaction he had in being permitted to couple with the toast the name of Dr. C. J. Hare, the treasurer of the Royal Medico-Chirurgical Society. He had, like many present, been privileged by being associated with Dr. Hare in several ways, and in every relation Dr. Hare seemed more than worthy of the warmest terms of commendation.

Dr. HARE, in replying to the toast, said that he had listened to many toasts at many dinners, but he never had felt that so apt and so kindly a sentiment had been so well and so tersely put. He spoke with every gratification in response, as he endorsed all that had been so well said by the senior Secretary. It was a great pleasure to him to come, and he hoped there might be many more such meetings.

Dr. GRANVILLE BANTOCK proposed "Our Guests," and with it associated the names of the Master of the Society of Apothecaries and Dr. Dawson Williams. Dr. Bantock referred to the great influence which the press possessed, and felt that a just recognition of the position (not always an enviable one), of those responsible for the management of a great journal, was not easy to realise.

The Master of the Apothecaries' Society, in an interesting speech, related the present relations of the Society to the profession, and spoke of the important social functions which had for so long a time been a distinguishing feature of the Society.

Dr. DAWSON WILLIAMS spoke in a genial and kindly way of the relationship between the journal he represented and the profession. He said they had many interests to consider, many people to satisfy; so far as possible they always tried to please all. He in his own name, and that of the other guests, thanked the Society.

The remaining toasts were "The Chairman" proposed by Dr. SAVAGE (President-elect), and "The Secretaries," replied to by Dr. SCHACHT and Dr. LEITH NAPIER; the latter proposed a hearty toast to Dr. Campbell Pope and the talented musicians who had so kindly, and so excellently added to the evening's enjoyment.

Dr. POPE replied.

During the evening a number of capital songs were rendered by Dr. Campbell Pope, Messrs. Streeten, Richards, Ford and F. S. Cheesewright. The singing of the last-named gentleman was much appreciated, and he was repeatedly encored.

We congratulate the Society on the unquestioned success of the first dinner. We trust that it may become an annual dinner—"bread and salt" are useful pledges even beyond the Arab's tent. If we can see each other now and again socially,

and meet without the formalities of the Society meeting or those of the sick chamber, we are more likely to realise that man is a compound animal made up of many atoms, some of the best of which are sometimes lost sight of in the seriousness of life. All work and no play is proverbially bad, and unquestionably our fitness for lasting work, as a Society or as units, will be helped rather than hindered by rational relaxation.

INDEX.

	PAGE
ABDOMINAL section, notes on the after treatment of cases (Martin) . . .	513
Address, presidential, Fred. Bowreman Jessett, F.R.C.S., February 9, 1893	4
— valedictory, Fred. Bowreman Jessett, F.R.C.S., January 11, 1894 . . .	442
Albuminaria gravidarum, the treatment of (Jaccoud)	119
Annual meeting, treasurer's report	431
Artificial respiration in asphyxia neonatorum, new method of (Dew) . .	121
Atrophy of the uterus in young women (Gottschalk)	330
BACTERIOLOGY of the infantile vagina (Strogenoff)	323
Bantock (G. G.) Specimens of uterine myomata (shown)	23, 70
— remarks in discussion on T. Savage's paper, hæmorrhage from the uterus	43
— remarks in discussion on W. J. Sinclair's paper, intra-peritoneal myomotomy	72
— remarks in discussion on H. A. Reeves' case of vesical calculus . . .	132
— remarks in discussion on Macnaughton Jones' paper on uterine reflexes .	149
— remarks in discussion on F. B. Jessett's cases of removal of uterus with caustics	269
— remarks in discussion on T. Savage's case of vaginal hysterectomy for prolapse	384
— remarks in discussion on F. B. Jessett's cases of vaginal hysterectomy .	410
— remarks in discussion on J. W. Taylor's method of hysterectomy . .	428
Barnes (Robert) notes on uterine reflexes	154
Benington (R. Crewdson) tubal gestation, notes of a case operated on twice successfully in eighteen months	435
Blennorrhœa neonatorum, the prophylaxis of (Von Erdberg)	369
Boxall (R.) remarks in discussion on W. J. Sinclair's paper, intra-peritoneal myomotomy	88
Butler-Smythe (A. C.) Remarks in discussion on Mr. J. Sinclair's paper, intra-peritoneal myomotomy	86
CÆSAREAN section for shoulder presentation (Hubert)	360
— section for osteomalacia complicated by placenta prævia (Lodemann) . .	368
Carcinoma of the cervix uteri, the palliative treatment of (Sanger) . . .	327
Chlorosis and <i>post-partum</i> anemia (Schmidt)	347
Cœliotomy with local anaesthesia (Largeau).	249
Conception intra- <i>puerperium</i> (Kronig)	377

	PAGE
Cullingworth (C. J.) Remarks in discussion on W. J. Sinclair's paper, intra-peritoneal myomotomy	84
Cysts of the pancreas simulating ovarian cyst (Hersche)	241
DECIDUOMA malignum (Gottschalk)	242
Delivery, a case of sudden (Leblond)	376
Dermoid cyst containing superior maxilla with sixteen teeth (Dickinson)	340
Dinner of The British Gynæcological Society	516
Displacements, the operative treatment of vaginal, uterine and ovarian (Leith Napier)	171
— of the uterus, treatment of posterior (Williams)	328
Dührssen's operation for retroflexion	334
Dystocia caused by great distension of the foetal urinary bladder (Schwyzer).	306
ECLAMPSIA bacilli, concerning the question of (Döderlein).	118
— treatment of (Charpentier)	358
— puerperal (Green)	365
Ectopic gestation, the differential diagnosis of early (Coe)	351
Edis (A. W.) Remarks in discussion on T. Savage's paper, hæmorrhage from the uterus	41
— remarks in discussion on Macnaughton Jones' paper on uterine reflexes	151
— remarks in discussion on F. B. Jessett's cases of vaginal hysterectomy	409
Effect on sucklings of purgatives administered to the mother (Gow)	122
Electro-therapeutics in gynæcology (Mandl)	348
Endometritis, treatment of cervical (Bouilly)	324
Extirpation of the cancerous uterus, a new method of total (Hersfeld)	332
FALLOPIAN tube, inguinal hernia of the (Guinard)	242
— tube, strangulated hernia containing a (Lejars)	335
— tube, hæmorrhagic necrosis of the (Sanger)	337
— tube, primary epithelioma of the (Boutier)	337
Fenwick (Bedford) Remarks in discussion on Macnaughton Jones' paper on uterine reflexes	152
Fenton (Hugh) Remarks in discussion on T. Savage's case of vaginal hysterectomy for prolapse	382
Fever during labour (Winter)	103
Fibroma of the ovary (Delagrange)	511
Fibromyoma of the ovary, case of (Feis)	491
Fibroids, treatment of uterine	325
Foetal skeleton in a dermoid cyst (Répin)	107
— placental circulation during parturition (Caviglia)	375
Forcing a sea-tangle tent into Douglas' cul de sac (Watson).	108
GLASS trocars for tapping ovarian cysts (Kelly)	246
Gonorrhœa in little children (Cassel)	501

	PAGE
Gonorrhœa of the rectum (Robinson)	350
— Gonorrhœal affections of the mouth in infants (Leyden)	494
— fever during the puerperium (Leopold)	496
— infection finally producing ovarian abscess (Robinson)	254
 HÆMATOMA of the vulva (Murray)	321
Hæmophilia and parturition (Wehle)	354
Hæmorrhage from the uterus (Savage)	30
— hydrastinine in uterine (Gottschalk)	325
— in the new born (Lockhart)	374
Hernia, obturator, containing the tube and ovary (Rogner-Gussenthal)	336
— strangulated, containing a Fallopian tube (Lejars)	335
Hodgson (R. H.), case of multiple sarcomata	1
— remarks in discussion on Macnaughton Jones' paper on uterine reflexes	165
Hydrorrhœa gravidarum (Chazan)	498
Hysterectomy by the clamp operation, a special method for its performance (Taylor)	421
— for puerperal metritis (Goldsborough)	123
— for soft myoma of the uterus (Noble)	244
 ICHTHYOL in gynæcology, the use of (Hermann)	237
— in the treatment of diseases of women (Herff)	506
Insanity, influence of parturient lesions in causation of puerperal (Rohe)	106
— following laparotomy (Baldy)	318
— the relations of operative gynæcology to (McFarland)	315
Internal crossing of the ovum (Veit)	344
Intra-peritoneal myomotomy (Sinclair)	49
Inversion of the uterus, chronic (Brasius)	113
Irrigation of the non-puerperal uterus (Talley)	486
 JESSETT (F. BOWREMAN), presidential address, February 9, 1893	4
— sarcoma of uterus (shown)	129
— uterus removed by abdominal hysterectomy (shown)	263
— remarks in reply	265
— uteri removed by caustics, three specimens (shown)	266
— remarks in reply	270
— twelve cases of vaginal hysterectomy with one death	389
— remarks in reply	412
— malignant disease of the uterus, two specimens (shown)	420
— uterus studded over with myomata (shown)	441
— remarks in discussion on W. J. Sinclair's paper, intra-peritoneal myomotomy	88
— remarks in discussion on Macnaughton Jones' paper on uterine reflexes	166
— remarks in discussion on F. Purcell's case of removal of uterus by chloride of zinc	417

	PAGE
JONES (MACNAUGHTON) large multilocular ovarian cyst (shown)	3
— enlarged ovaries with paroöphoritic cysts (shown)	4
— case of paroöphoritic blood cysts (shown)	4
— case of blood cysts of ovary	47
— uterine reflexes, distant lesions, and remote symptoms due to uterine irritation	133
— remarks in discussion on T. Savage's paper, hæmorrhage from the uterus	42
 LAPAROTOMY, short report on 200 cases of (Orloff)	 489
Lawrie (J. Macpherson) vaginal hysterectomy on a patient 66 years of age .	385
Letter of sympathy from the Society to Lady Clark	414
Lithopedion, removal of a five-pound (Gottschalk)	249
Lycett (J. A.) Remarks in discussion on Leith Napier's paper on treatment of displacements	190
 MAMMARY abscess, prompt and radical treatment of (Weber)	 112
Martin (Christopher) the nerve theory of menstruation	271
— remarks in discussion on J. W. Taylor's method of hysterectomy .	429
Melæna neonatorum (Gelpke)	120
Menstruation, the nerve theory of (Martin)	271
Midwifery at the Rotunda at Dublin (Smyly)	361
Milk of nursing women, on microbes in the (Ringel)	485
Morphine on the female pelvic organs, the action of (Passower)	238
Morton (T.) remarks in discussion on Macnaughton Jones' paper on uterine reflexes	161
Moullin (J. A. Mansell) treasurer's report	431
— Remarks in discussion on H. A. Reeves' case of vesical calculus . .	131
— Remarks in discussion on Macnaughton Jones' paper on uterine reflexes .	159
— Remarks in discussion on R. C. Benington's case of tubal gestation .	438
 NAPIER (A. D. LEITH), the operative treatment of vaginal, uterine and ovarian displacements	 171
— in discussion on T. Savage's paper, hæmorrhage from the uterus . .	39
— in discussion on W. J. Sinclair's paper, intra-peritoneal myomotomy .	88
— in discussion on H. A. Reeves' case of vesical calculus	132
— in discussion on Macnaughton Jones' paper on uterine reflexes . . .	163
— in discussion on F. B. Jessett's cases of removal of uterus with caustics .	269
— in discussion on T. Savage's case of vaginal hysterectomy for prolapse .	324
— in discussion on J. B. Jessett's cases of vaginal hysterectomy . . .	406
 OBITUARY—James Hobson Aveling, M.D.	 212
Charles Clay, L.R.C.S.Ed.	214
Arthur Wellesley Edis, M.D., F.R.C.P.	285
Obliquity of the uterus in vertex presentation (Vallois)	353

	PAGE
Osteomalacia (Sternberg)	115
— during pregnancy greatly benefited by oöphorectomy (Rasch).	239
— the origin of puerperal (Löhlein)	502
Ought the obstetric physicians at general hospitals to perform abdominal section?	451
Ovarian tumour weighing 111 pounds (Keen)	339
Ovariectomy in Japan (Omori)	238
— without chloroform (Layean).	338
— on patients over seventy years of age by American operators (Sherwood)	342
— notes of a case where it was twice performed (Heywood Smith)	455
 PAPILLOMATOUS tumours of the ovary (Williams)	 114
Peritonitis, acute, from the rupture of dermoid cyst (Tison).	248
— surgical treatment of acute general (Edebohls)	250
Pelvic abscess (Cullingworth)	507
— disease in the insane (Bennett)	255
— inflammatory diseases, the diagnosis of (Kelly)	487
Phillips (John) remarks in discussion on Leith Napier's paper on treatment of displacements.	189
Pope (C. H.) remarks in discussion on C. Martin's paper on the nerve theory of menstruation	282
<i>Post-mortem</i> birth (Moritz).	237
Premature sexual development (Halliday Croom)	99
Prevention of conception, means for the (Ferdy).	350
Proposed registration and inspection of still-born children (Rentoul)	196
Puerperal peritonitis, treated by hysterectomy (Lapthorn Smith).	376
Puerperal state and pre-existing microbic infection (Prioleau)	497
Puerperal tetanus (Heyse)	233
Purcell (F. A.) body and neck of cancerous uterus removed by chloride of zinc (shown)	415
— remarks in reply	417
— remarks in discussion on F. B. Jessett's case of abdominal hysterectomy	264
— remarks in discussion on F. B. Jessett's cases of removal of uterus by caustics	267
— remarks in discussion on F. B. Jessett's cases of vaginal hysterectomy	407
— remarks in discussion on J. W. Taylor's method of hysterectomy	429
Purpura of the new-born (Glenn)	371
Pyosalpinx, cases of, treated by uterine drainage with subsequent conception (Murray)	305
 REEVES (H. A.) vesical calculi (shown)	 130
— remarks in reply	132
— remarks in discussion on F. B. Jessett's cases of vaginal hysterectomy	411
Rentoul (R. R.) Proposed registration and inspection of stillborn children	196

	PAGE
REVIEWS.	
A treatise on gynaecology, by S. Pozzi, M.D.	459
An introduction to midwifery, by Archibald Donald, M.D.	467
Antiseptics in midwifery, by Robert Boxall, M.D.	472
Clinical gynaecology, by Thomas More Madden, M.D.. . . .	472
The year book of treatment for 1894	480
A handbook of obstetrical and gynaecological nursing, by More Madden, M.D.	481
Routh (C. H. F.) remarks in discussion on T. Savage's paper, hæmorrhage from the uterus	40
— remarks in discussion on MacNaughton Jones' paper on uterine reflexes	149
— remarks in discussion on Leith Napier's paper on treatment of displace- ments.	191
— remarks in discussion on F. B. Jessett's cases of removal of uterus by caustics	268
— remarks in discussion on R. C. Benington's case of tubal gestation	439
— remarks in moving vote of thanks to the president for valedictory address	449
Rupture of the uterus during pregnancy and during labour (Blind)	119
 SALIPYRIN in menorrhagia (Zurhelle).	346
Sarcoma of the uterus previous to puberty (Smith)	247
— of the ovaries (Theilhaber)	342
Savage (T.) hæmorrhage from the uterus	30
— suppurating Fallopian tubes (shown)	381
— uterus removed by vaginal hysterectomy for prolapse (shown)	381
— remarks in seconding vote of thanks to the president for valedictory address	450
Scarlet fever in pregnancy, with infection of the fœtus (Ballantyne)	287
Schacht (F. F.) ruptured tubal gestation (shown)	260
— remarks in discussion on Leith Napier's paper on treatment of displace- ments.	193
— remarks in discussion on F. B. Jessett's case of abdominal hysterectomy	265
— remarks in discussion on R. C. Benington's case of tubal gestation	440
Shaw-Mackenzie (J. A.) pathological report on W. Traver's specimen of extra-uterine gestation.	260
— pathological report on F. F. Schacht's specimen of ruptured tubal gesta- tion	262
Sinclair (W. J.) intra-peritoneal myomotomy	49
Smith (Heywood) epithelioma of the cervix uteri, removed by supra-vaginal amputation (shown)	3
— uterine fibroid with cystic ovaries, hydrosalpinx (shown)	257
— fibroid uterus, removed by vaginal hysterectomy (shown)	440
— notes of a case where ovariectomy was twice performed	455
— remarks in discussion on W. J. Sinclair's paper, intra-peritoneal myomo- tomy	69, 86
— in discussion on Macnaughton Jones' paper on uterine reflexes	164
— in discussion on Leith Napier's paper on treatment of displacements	189

	PAGE
Smith (Heywood) in discussion on F. B. Jessett's case of abdominal hysterectomy	265
— in discussion on F. B. Jessett's cases of removal of uterus with caustics	269
— in discussion on F. B. Jessett's cases of vaginal hysterectomy	409
Smith (R. T.) Sarcoma of the ovary (shown)	46
Sound, passage of the, through the uterus (Jacobs)	324
Spanton (W. D.) Tubo-ovarian gestation, retro-uterine hæmatocele (shown)	168
— remarks in discussion on MacNaughton Jones' paper on uterine reflexes	156
— remarks in discussion on Leith Napier's paper on treatment of displacements	192
Spontaneous rupture of the symphysis during delivery (Oehlschlager)	369
Stenosis of the cervix, plastic method of dilatation in (Vulliet)	503
Sugar in the urine during the puerperal state (McCann and Turner)	117
Suppuration, the treatment of pelvic (Pean)	109
Symphysiotomy	222
— (Schwarz)	116
— contribution to the practice of (Caruso)	108
— for contracted pelvis (Burns)	371
— four and one-fourth years after a Cæsarean section (Regnier)	231
— use of the Esmarch bandage in (Förngren)	231
Syphilis and pregnancy (Fournier)	355
TAYLOR (John W.) Cyst of Fallopian tube. Hæmato-salpinx. Double hæmato-salpinx, with myoma of uterus (shown)	418
— hysterectomy by the clamp operation, a special method for its performance	421
— remarks in reply	430
Traumatic detachment of the placenta, foetus born alive (Odebrecht)	352
Travers (W.) Extra-uterine gestation (shown)	258
— remarks in discussion on MacNaughton Jones' paper on uterine reflexes	162
— remarks in discussion on Leith Napier's paper on treatment of displacements	194
— remarks in discussion on R. C. Benington's case of tubal gestation	439
Tubal gestation, notes of a case operated on twice successfully in eighteen months (Benington)	435
Tubercular peritonitis cured by celiotomy, how is? (Bumm)	249
Tuberculosis of the female generative organs (Williams)	110
— of the placenta (Lehmann)	361
— vesical, in the female (Paton)	253
UNCONSCIOUS delivery (Le Blond)	356
Urethra, sarcoma of the female (Ehrendorfer)	106
Uterine cancer associated with fibroid tumour (Frank).	245
Uterine reflexes, distant lesions, and remote symptoms due to uterine irritation (Macnaughton Jones)	133
Uterus, new and rapid way of removing the (Lanphear)	329

Uterus unicornis with rudimentary horn, three cases (McCracken)

VAGINAL hysterectomy and high amputation in carcinoma

— *hysterectomy in the pregnant cancerous uterus (McCracken)*

— *hysterectomy on a patient 66 years of age (Lawrie)*

— *hysterectomy, twelve cases of, with one death (Jesett)*

— *fistula, the etiology of (Hohenbalken)*

— *ligation of a portion of the broad ligament for uterine hemorrhage (Martin)*

Vaginal pessaries, dangers of (Neugebauer)

Vaginodynia, perineal spasm (Frost)

Varicocele of the recto-vaginal septum, treatment of (Chéron)

Vesico-vaginal fistula, abdominal section in cases of (Von Dintel)

Vomiting of pregnancy, treatment of (Frommel)

Vulvitis pruriginosa, the etiology and operative treatment of (Sachs)

Vulvo-vaginitis in little girls (Rocaz)

XXVII.

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CONTENTS.

MEETING OF THE BRITISH GYNÆCOLOGICAL SOCIETY, ON NOV. 9, 1893	PAGE 381
THOMAS SAVAGE—SPECIMENS	381
FENTON ON VAGINAL HYSTERECTOMY	382
LAWRIE ON VAGINAL HYSTERECTOMY ON A PATIENT 66 YEARS OF AGE	385
BOWREMAN JESSETT ON TWELVE CASES OF VAGINAL HYSTERECTOMY FOR CARCINOMA UTERI, WITH ONE DEATH	389
DISCUSSION ON VAGINAL HYSTERECTOMY	406
MEETING OF THE BRITISH GYNÆCOLOGICAL SOCIETY, DECEMBER 14, 1893	414
F. A. PURCELL—SPECIMENS	415
DISCUSSION ON CANCEROUS UTERUS	417
TAYLOR ON CYST OF FALLOPIAN TUBE	419
F. BOWREMAN JESSETT—SPECIMENS	420
TAYLOR ON HYSTERECTOMY BY CLAMP OPERATION	421
DISCUSSION ON HYSTERECTOMY	428
SPECIAL GENERAL AND ANNUAL MEETINGS OF THE BRITISH GYNÆCOLOGICAL SOCIETY, JANUARY 11, 1894	431
TREASURER'S REPORT	431
BALANCE SHEET	432
BENINGTON ON TUBAL GESTATION	435
DISCUSSION ON TUBAL GESTATION.	438
HEYWOOD SMITH—SPECIMENS.	440
DISCUSSION ON FIBROID UTERUS	441
F. BOWREMAN JESSETT—VALEDICTORY ADDRESS	442
ORIGINAL COMMUNICATION:—	
OUGHT OBSTETRIC PHYSICIANS AT GENERAL HOSPITALS TO PERFORM ABDOMINAL SECTION?	451
CLINICAL CASES	455
REVIEWS	459
SUMMARY OF GYNÆCOLOGY, INCLUDING OBSTETRICS	485
MEDICAL NEWS	516

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